



BOROUGH OF WALLSEND.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

JAMES A. GILES, M.B., B.S., D.P.H.

FOR THE YEAR

1913.

WALLSEND.
JOHN THORNTON, PRINTER,
CENTRAL BUILDINGS, STATION ROAD.

INDEX.

Members of Sanitary Committee and Staff	...	...	...	Page	3
Statistical Summary	...	...	...	...	4
Address ...	...	...	...	...	5
A.—Sanitary Circumstances and Administration of the Borough					6
Water Supply	...	...	...	...	7
Rivers and Streams	...	...	...	...	7
Drainage and Sewerage	...	...	...	...	7
Closet Accommodation	...	...	...	...	7, 48
Scavenging	...	...	...	...	8, 49
Sanitary Inspections	...	...	...	...	9, 54
Premises controlled by Bye-laws	...	...	...	...	9, 53
Food and Meat Inspection	...	...	...	...	12, 50
Milk Supply	...	...	...	...	10
Housing	...	...	...	...	15, 46, 47
Workshops, Workplaces, etc.	...	...	...	...	55, 56
Inspector's Report	...	...	...	...	44
B.—Prevalence of and Control over Acute Infectious Diseases.					17
Small Pox	...	...	...	...	19
Scarlet Fever	...	...	...	...	19
Diphtheria	...	...	...	...	21
Enteric Fever	...	...	...	...	23
Measles	...	...	...	...	26
Whooping Cough	...	...	...	...	27
Epidemic Diarrhœa	...	...	...	...	27
Infectious Diseases Hospital	...	...	...	...	13
C.—Prevalence of and Control over Tuberculosis.					28
D.—Means for preventing mortality in Child-birth and in Infancy					32
E.—Vital Statistics of the Borough.					35
Population	...	...	...	...	35
Area of the Borough	...	...	...	...	36
Density of Population	...	...	...	...	36
Natural Increase of Population	...	...	...	...	35
Births and Birth Rates	...	...	...	...	39
Deaths and Death Rates	...	...	...	...	37
Infantile Mortality	...	...	...	...	40

BOROUGH OF WALLSEND

SANITARY COMMITTEE.

Chairman :—ALDERMAN SWAN.

Vice-Chairman :—COUNCILLOR HILL.

ALDERMAN O'HANLON.	COUNCILLOR HARDY.
,, REID.	,, MORPETH.
,, THOMPSON.	,, MULLEN.
COUNCILLOR AITCHISON.	,, REID.
,, ANDERSON (R. M.)	,, SCORER.
,, ELLIOT.	,, SWINBURNE.
,, FORREST	,, TAYLOR.
,, HALLIDAY.	,, WOMPHREY.

STAFF.

Medical Officer of Health :

JAMES A. GILES, M.B., B.S., D.P.H.

Chief Sanitary Inspector :

WILLIAM JOHNSON, Cert. R.S.I., Meat Cert.

Assistant Sanitary Inspectors :

THOMAS DAVIDSON.

ROBERT MCKELLAR, Cert. R.S.I.

Health Visitor :

Miss M. H. O'BRADY-JONES, Cert. R.S.I.

Clerk :

W. BLACK.

Statistical Summary, 1913.

Area of the Borough	...	...	...	...	3,544 Acres
Estimated Population at Middle of Year	...	...	...	...	43,700
Inhabited Houses	...	...	...	...	8,798
Average Number of Persons per House	...	...	...	...	4·9
Natural Increase of Population	...	...	...	...	628
Density of Population	...	...	...	...	12·04
Births	...	...	...	...	1,297
Birth Rate per 1,000 of the Population	...	...	...	...	29·7
Deaths	...	...	...	...	659
Death Rate per 1,000 of the Population	...	...	...	...	15·1
Deaths from Zymotic Diseases	...	...	...	...	79
Death Rate from Zymotic Diseases	...	...	...	...	1·81
Number of Deaths among Infants	...	...	...	...	154
Infantile Death Rate	...	...	...	...	119·5
Number of Deaths from Pulmonary Tuberculosis	...	...	...	...	32
Death Rate from Pulmonary Tuberculosis	...	...	...	...	·73

PUBLIC HEALTH DEPARTMENT,

TOWN HALL,

WALLSEND.

March, 1914.

TO THE MAYOR, ALDERMEN, AND COUNCILLORS
OF THE BOROUGH OF WALLSEND.

MR MAYOR AND GENTLEMEN,

I have the honour to submit, in accordance with the order of the Local Government Board, my Annual Report on the Health, Sanitary circumstances and Sanitary administration of the Borough, during 1913.

The Birth-rate, while showing a decrease on the previous year, is nevertheless much higher than the figure for England and Wales.

The Death Rate (15.1) is considerably higher than that for the whole country, and is the highest recorded during the preceding 12 years.

The chief increases referred to deaths from measles, whooping cough, respiratory diseases, diarrhoea and enteritis, and from cancer.

On the other hand, there was a welcome reduction in deaths from diphtheria, pulmonary tuberculosis, and among infants, in deaths from congenital debility and premature birth.

The Infantile Mortality-rate is higher than in 1912, and was chiefly influenced by a decided increase in deaths from measles, whooping cough, respiratory diseases, and intestinal diseases.

Greater progress it is expected will be made in the care of infants. In addition to the work undertaken under the Notification of Births Act, arrangements have already been made for instruction in infant care and management to be given by the School Nurse to the older girls in the Public Elementary Schools. This is a step in the right direction, and should go far to ultimately lessen the wastage of infant lives.

All the common infectious diseases made their appearance during 1913, but, as in previous years, the diseases were, as a rule, mild in character.

Scarlet fever was very prevalent during the last two quarters of the year, and was still much in evidence at the time of writing this Report. There was a decided reduction in the prevalence of diphtheria, but 26 more cases of enteric fever were notified than in 1912.

To carry out the intentions of the Tuberculosis Order, 1913, the duties of your Veterinary Surgeon, Mr Irvin, have been extended to include the quarterly inspection of all cows in the Borough. The order aims at the elimination of all bovines suffering from tuberculosis, and a consequent improvement of the milk supply.

The conservancy system of refuse disposal, which there can be no doubt is the cause of much sickness, especially during the hotter months, is gradually disappearing from Wallsend.

Much good work has been done by your Inspectors in connection with drainage, the discovery and abatement of nuisances, housing, the inspection of meat and other food, etc., and altogether the work of the Department has assumed greater proportions than in any previous year.

A new feature of the Report will be found in the table relating to the meteorological conditions during the year, which was kindly supplied by the Park Superintendent, Mr Raisbeck.

It is with extreme regret that I officially record the death of Dr Thomas Wilson, which occurred towards the close of the year.

For upwards of 33 years, Dr Wilson acted in the capacity of Medical Officer of Health, and on my accession to office in 1911, he was appointed Consulting Medical Officer of Health, which post he held up to the time of his decease.

A further change in the staff, has been occasioned by the resignation of Nurse Jones. The vacancy has been filled by the appointment of Nurse Johnson, who will commence her new duties on 1st March, 1914.

I take the opportunity to thank the Chairman and Members of the Sanitary Committee, for their consideration and support, and to express my appreciation of the satisfactory manner in which the staff of my Department have discharged their respective duties during the year.

I am, Mr Mayor and Gentlemen,

Your obedient Servant,

JAMES A. GILES.

A. SANITARY CIRCUMSTANCES AND SANITARY ADMINISTRATION OF THE BOROUGH.

The following general adoptive Acts are in operation in the Borough:—

The Infectious Disease Prevention Act, 1890.

The Public Health Acts Amendment Act, 1890.

The Housing of the Working Classes Act, 1890 (Part iii).

The Notification of Births Act, 1907.

The Public Health Acts Amendment Act, 1907 (Section 2, Subsection 2).

WATER SUPPLY.

A constant supply of wholesome water has been provided during the year by the Newcastle and Gateshead Water Company. All the houses are provided with water from this source.

Table vii. which gives an analysis of the water for each month of the year, shows the mineral constituents in degrees of hardness both as regards the total and permanent hardness, one degree representing 1 part per 100,000 parts of Ca CO_3 .

The water, though rather hard in quality, is nevertheless excellent for domestic and drinking purposes, the only disadvantages associated with its hardness being an excessive waste of soap and the furring of kettles and of domestic water-supply pipes and boilers.

The absence of lead or other poisonous metals and the satisfactory results of microscopical and bacteriological examination will be noted.

DRAINAGE AND SEWERAGE.

The Borough is almost entirely systematically sewered. The unsewered area lies on the north side of the district and consists mainly of agricultural land.

The sewerage system is combined, the sewage from the original Borough and from Willington Quay being discharged without treatment into the River Tyne by 10 outfalls.

The sewage from Bigges Main, which consists chiefly of surface water and sink-waste undergoes bacterial treatment and intermittent downward filtration, the effluent being discharged into the Wallsend Burn.

The drainage of houses is for the most part effected by yard gullies and drains having direct connection with the sewers, but in houses of recent construction, intercepting traps and inspection chambers are provided.

CLOSET ACCOMMODATION.

The closet accommodation of the Borough at the end of the year 1913, was as follows:—

Ashpit-privies	243
Cell-privies	6,131
Slop-closets	0
Water-closets	1,197

The work of converting insanitary types of closet into water-closets has been actively pursued, 34 ashpit-privies, 7 cell-privies, and 22 slop-closets having been removed, and 57 water-closets substituted.

The several types and number of closets converted during the past three years are shown below:—

Year.	Number of Water Closets substituted for Ash-pit Privies.	Number of Water Closets substituted for Cell Privies.	Number of Water Closets substituted for Slop Closets.	Total Substitutions.
1911	23	...	...	23
1912	152	16	1	169
1913	28	7	22	57

All new houses are provided with water-closets and approved ash receptacles.

SCAVENGING.

Street cleansing and the removal of domestic and other refuse are carried out by the Council's own employees.

All domestic refuse was removed at night.

Cell-privies and ash-bins were, as a rule, cleaned once a week, exception being made in the case of congested neighbourhoods, where a bi-weekly scavenging was undertaken.

Ash-pits are cleaned fortnightly.

There are no cesspools in the Borough.

Trade refuse is, by arrangement, collected from certain places of business twice a week, and on Saturday nights a special collection of refuse from butchers' and fishmongers' shops is made.

Refuse is disposed of in three ways: by hopper barge to sea; by casting in a tip at a brickfield at Howdon; and by being deposited on agricultural land by arrangement with the farmers.

At present the Council possesses only one hopper, the holding capacity of which is 400 tons and which incidentally serves the purpose of carrying to sea the refuse from the original Borough.

The Town Council have decided to provide an additional hopper and tipping quay to meet the requirements of the Willington and Willington Quay areas, and it is expected that the refuse from these areas, will, in the course of a few months, also be carried to sea.

The new arrangement will, of course, do away with the necessity of using the present brickyard tip.

Domestic refuse is not specially sorted, but articles such as mattresses, are removed to the furnace, situated on the site of the new tipping quay, and destroyed.

Altogether 24,665 tons of domestic and other refuse were collected, of which 15,105 tons were sent to sea, and 9,560 tons were deposited in the tip or cast upon agricultural land.

SANITARY INSPECTIONS OF THE DISTRICT.

The report of the Sanitary Inspector which is inserted at the end of the Report, shows in detail the work carried out during the year under his direction.

It will be seen that a considerable number of visits have been made in connection with new drains, the abatement of nuisances, with works in course of construction, etc.

PREMISES WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS:—

Common Lodging House	1
Bake-houses	5
Slaughter-houses	24
Cowsheds	14
Dairies and Milkshops	80

COMMON LODGING HOUSE.

The only common lodging house, which is situated in Benton Way, provides accommodation for 40 male lodgers, and has been well conducted during the year.

BAKE-HOUSES.

There are now on the Register 5 bake-houses. The general condition of the bake-houses is satisfactory, the standard of some being excellent.

SLAUGHTER-HOUSES.

There are 24 slaughter-houses in the Borough, of which 21 are licensed and 3 registered.

The slaughter-houses have been systematically visited during the year and on the whole, they have been maintained in a satisfactory condition.

COWSHEDS.

At the end of the year, there were 14 cowsheds containing 97 cows in the district. On the whole, they are fairly satisfactory as regards construction and the general arrangements made for lighting and ventilation. They have been regularly lime-washed, and a fairly high standard of cleanliness has been maintained.

In no case is proper washing accommodation provided in the cowsheds for the milkers, overalls are not used during the process of milking nor is it customary to groom the cows prior to being milked.

These matters were referred to in detail in a previous report, and it is therefore only necessary to add that if these and certain other simple precautions, which at present are regarded by the cowkeepers as being unnecessary, were adopted, they would certainly ensure a cleaner milk supply.

In one instance, the cowkeeper was warned against an infringement of the Regulations his attention being drawn to the dimensions of the cowshed, and to the necessity of reducing the herd so as to meet the requirement of 800 cubic feet of air space per cow.

Special attention has been directed towards the prevention of accumulation of manure in the vicinity of cowsheds.

DAIRIES AND MILKSHOPS.

There are 80 premises on the Register where a retail milk-trade is carried on, or an increase of 17 in the preceding year.

Many of these shops are quite unsuitable for the sale of milk. As a rule, the shopkeepers are general traders, and the milk is often closely associated with articles of an undesirable nature as far as the milk is concerned, and contamination is therefore likely to result.

All sellers of milk are required to be registered, but the Local Authority is not empowered to refuse to register any individual making application. In the absence of power to refuse registration in the event of the premises being unsuitable for milk selling, improvement in the milk supply from milkshops cannot be expected.

FOOD.

MILK SUPPLY.

About one third of the milk sold in the Borough is produced locally, the remainder being imported from other districts. The supply has, I believe, been sufficient, and there has been no reason to suspect the quality of the milk.

In several instances it was found that the cans containing imported milk were painted on the inside. The attention of the offending dairymen was directed to this undesirable practice, and systematic inspection of these cans has since been undertaken on their arrival at the railway station.

TUBERCULOSIS ORDER 1913.

This Order, which came into operation on 1st May, 1913, was made by the Board of Agriculture and Fisheries under the Diseases of Animals Acts, 1894 to 1911.

The Order provides for the notification, by cowkeepers and veterinary surgeons in private practice, of any cow which is or appears to be suffering from tuberculosis of the udder, indurated udder, or other chronic disease of the udder, and any bovine animal which is, or appears to be, suffering from tuberculosis with emaciation.

In a circular explanatory of the Order, the Board announced that they had obtained from the Treasury authority to refund local authorities half the net amount payable by way of compensation for animals slaughtered during a period of five years from the coming into operation of the Order. Local Authorities thus receive substantial pecuniary relief during the initial stages of the operations now being undertaken during which the expenditure involved in the administration of the Order may be expected to be abnormally high.

The Order has for its object the destruction of every cow found to be suffering from tuberculosis of the udder, or to be giving tuberculous milk, as well as all bovine animals which are suffering from tuberculosis with emaciation, since these are known to disseminate freely the germs of the disease.

Local Authorities for the purpose of the Diseases of Animals Acts are charged with the duty of investigating reports received under the Order with the assistance of a Veterinary Inspector, with a view to slaughtering any animal in their district shown to be suffering from one of these specified forms of tuberculosis.

The Local Authority are required by Article 5 of the Order, to cause every animal found by them to be suffering from one of the specified forms of tuberculosis, to be slaughtered. The animal to be slaughtered is to be valued in its condition at the time of valuation.

However, since the clinical diagnosis made by the Veterinary Inspector prior to slaughter may not be confirmed on post-mortem examination, it is provided that there shall be separate valuations on the basis both of the animal proving to be affected with tuberculosis, and of its proving not to be affected, and the amount of the compensation will depend upon the result of the examination.

The compensation payable by the Local Authority for an animal slaughtered under their direction in cases in which the post-mortem examination does not show tuberculosis is a sum equal to the full value of the animal, and a further sum of twenty shillings.

Where tuberculosis is found, the proportion of the value of the animal, payable by way of compensation, is made to depend upon the extent of the disease which is present.

If the certificate of the examination shows that the animal was suffering from tuberculosis (not being advanced tuberculosis), the Local Authority are required to pay as compensation, a sum equal to three-fourths of the value of the animal, less one half of the costs of valuation.

If the certificate of examination shows that the animal was suffering from advanced tuberculosis, the compensation is fixed at a sum equal to one-fourth of the value of the animal valued as a tuberculous animal, or the sum of thirty shillings, whichever sum is greater after deducting from such sum one half of the costs of the valuation.

To assist in fulfilling the intentions of the Order, the Town Council, early in the year, appointed the Veterinary Surgeon, who is already retained under the Diseases of Animals Acts to undertake a quarterly inspection of all the cows in the Borough and also to inspect, as occasion arises, any cow or bovine which may be reported to be suffering from tuberculosis.

As the animals affected with the forms of tuberculosis mentioned in the Order, are those which are chiefly responsible for the dissemination of the disease, the compulsory slaughter of such animals should have the effect of diminishing the prevalence of tuberculosis among cattle and coincidentally lead to an improvement in the milk supply.

FOOD INSPECTION.

An account of the work done in connection with the inspection of meat and other food, together with particulars of the articles of food condemned and destroyed during 1913, will be found in the report of the Sanitary Inspector.

Regular visits have been made to the slaughter-houses, but, having regard to the fact that slaughtering takes place on almost every day of the week, it has been found impossible for the inspector to be present in all cases at the actual time of slaughter, and complete supervision has therefore been out of the question.

Nevertheless, in view of the care generally exercised by the butchers in immediately reporting to the Health Department, any carcase or meat of a suspicious character, I am convinced that little, if any, diseased meat has been offered for sale to the public. No fat cows have been slaughtered for human food during the year, and, as a rule, only high-class animals have been selected for slaughter.

The following principles respecting meat inspection which were recommended by 1898 Royal Commission on Tuberculosis have been closely adhered to:—

(a) When there is miliary tuberculosis of the lungs.

(b) When tuberculous lesions are present on the pleura or peritoneum.

(c) When tuberculous lesions are present in the muscular system, or in the lymphatic glands imbedded in or between the muscles.

(d) When tuberculous lesions exist in any part of an emaciated carcase.

(a) When the lesions are confined to the lungs and the thoracic lymphatic glands.

(b) When the lesions are confined to the liver.

(c) When the lesions are confined to the pharyngeal lymphatic glands.

(d) When the lesions are confined to any combination of the foregoing, but are collectively small in extent.

The entire carcase and all organs may be seized.

The carcase if otherwise healthy, shall not be condemned, but every part of it containing tuberculous lesions shall be seized.

The weight of meat condemned during the year was somewhat greater than the average of recent years.

It will be noted that tuberculosis is again responsible for a very large proportion of the meat surrendered, but, as so frequently happens, the disease occurred, not in emaciated animals, but in those showing no outward signs of tuberculosis during life.

SALE OF FOOD AND DRUGS ACT.

The administration of the so-called Adulteration Acts is under the control of the County Council.

I am indebted to the Chief Constable of the County for the following statement showing the number and nature of the samples taken during 1913, together with the results of analysis and the subsequent action taken.

ARTICLE.	No. of Sample obtained.	Number Adulterated.	Number Doubtful.	Number not Adulterated.	Number of Prosecutions.	Number Fined.	Number Dismissed.	No. Withdrawn on Payment of Costs.	Amount of Fines Imposed.	Amount of Costs.
Milk	22	1	...	21	1*	1	...	...	£1 0 0	£1 0 0
Butter... ..	5	...	1	4	...	...	...	...	...	...
Margarine	2	...	1	1	...	...	...	...	...	...
Lard	3	...	...	3	...	...	...	...	...	...
Jams	8	1	...	7	1†	...	...	1	...	£1 6 0
Ground Ginger	1	...	...	1	...	...	...	...	...	...
Yeast	1	...	...	1	...	...	...	...	...	...
White Pepper	1	...	...	1	...	...	...	...	...	...
Mustard	1	...	...	1	...	...	...	...	...	...
Baking Powder	1	...	...	1	...	...	...	...	...	...
Cream of Tartar	1	...	...	1	...	...	...	...	...	...
Pork Sausage	1	1	...	...	1‡	...	1	...	...	...
Whiskey	1	...	...	1	...	...	...	...	...	...
Vinegar	2	...	...	2	...	...	...	...	...	...
Tea	1	...	...	1	...	...	...	...	...	...
Total	21	3	2	46	3	1	1	1	£1 0 0	£2 6 0

* This sample was deficient in milk-fat to the extent of 20 per cent.

† This sample—gooseberry jam—contained tissue derived from apple pulp which formed a considerable proportion of the sample.

‡ The sample of pork sausage contained boric acid equivalent to 23 grains per pound.

HOSPITAL ADMINISTRATION IN RELATION TO ACUTE INFECTIOUS DISEASES.

The Hospital administration is under the care of the Medical Superintendent, and not the Medical Officer of Health.

The Small Pox Hospital and the Infectious Diseases Hospital, are situated in an open and healthy situation, on the north side of the Borough.

The former contains 28 beds, and is at all times ready for the reception of cases, while the latter has a total accommodation of 80 beds, made up as follows:—

	Scarlet Fever.	Diph- theria.	Enteric Fever.	Total No. of Beds.
Ordinary Wards ...	22	17	18	57
Observation Ward ...	...	...	...	4
Convalescent Ward ...	19	...	...	19
Totals ...	41	17	18	80

DISEASE.	No. of Cases Notified.	No. of Cases Admitted to Hospital.	Percentage.
Scarlet Fever ...	199	193	96.9
Diphtheria ...	97	85	87.6
Enteric Fever ...	49	47	95.9
Totals ...	345	325	94.2

The diagnosis prior to notification of 6 cases of diphtheria, and 5 cases of enteric fever was, after observation in hospital, considered to be in error.

Out of the total number of cases admitted, there were 7 deaths, giving a mortality rate of 2.1 per cent. as compared with 4.8 per cent. in the previous year. The mortality among cases in which the diagnosis on notification was confirmed, was 2.2 per cent.

Of the total deaths, 2 occurred within 24 hours, and 1 within 48 hours, of admission.

SCARLET FEVER.

The number of admissions was 193, or 94 more than in 1912, the average stay in hospital being 47.5 days.

There was no death from scarlet fever.

DIPHTHERIA.

85 cases notified as suffering from diphtheria were admitted, as compared with 126 in the previous year.

Of these, there had been an error of diagnosis in 6 instances.

Of the 79 proved cases of diphtheria, 3 died, giving a case mortality of 3.8 per cent., as compared with 7.5 per cent. in 1912.

Two of the deaths occurred within 24 hours of admission.

The average stay in hospital for the true cases which recovered was 36 days, and for the fatal cases 4.3 days.

ENTERIC FEVER.

The number of admissions was 47, or 24 more than in 1912.

The diagnosis prior to admission was considered to be in error in 5 instances.

During the year, 4 patients died in hospital from enteric fever, giving a case mortality of 9.5 per cent. as against 10.5 per cent. in the preceding year.

The average stay in hospital of the 42 true cases of enteric fever was 29.4 days.

Of these, 6 were severe cases and 3 died—the remaining death referred to a patient admitted in 1912—the average stay in hospital of those which recovered being 82 days.

In 36 instances the character of the illness was mild, the average stay in hospital of these cases being only 26.8 days.

HOUSING.

NUMBER OF DWELLINGS IN THE BOROUGH.

WARDS.	CLASS OF HOUSES.					
	Self- Cont'n'd	One Room.	Two Rooms.	Three Rooms.	Four Rooms & upwards	Total.
Wallsend	181	...	347	200	127	855
Northumberland ...	209	...	426	111	113	859
Carville	209	...	51	461	414	1,135
Buddle	320	...	5	423	421	1,169
Hadrian	398	...	172	235	154	959
Holy Cross	112	...	68	496	489	1,165
Howdon	99	91	344	264	235	1,033
Willington Quay ...	157	42	439	239	198	1,075
Willington	66	...	90	196	196	548
Totals	1,751	133	1,942	2,625	2,347	8,798

At the end of 1911, at which time trade was somewhat slack, there was a sufficient supply of houses for the working classes.

Early in the following year, however, a decided improvement was manifested in the shipbuilding and engineering industries, and this, together with considerable extensions at the collieries, had the effect of bringing many new workmen and their families into the district.

All the available houses in the original Borough gradually became filled, and at the fall of the same year, only a few houses in the Willington Quay district remained empty. But, during the year under review, these also became occupied so that at the present time an empty house is practically unknown in the Borough.

A considerable number of workmen—estimated to be some 3,000—employed in the district reside elsewhere, and it may be assumed that very many of these would take up their residence in Wallsend provided accommodation could be found.

The same argument of course applies inversely to residents working in other places, but they by no means reach the proportions of non-residents working in the Borough.

Information as to the average number of persons to each house in the respective wards and in the Borough as a whole, is given in the table relating to infant mortality. The figures are quite satisfactory and indicate that while the town may be full it is by no means overcrowded.

Nevertheless, individual cases of overcrowding have been discovered, but in the majority of instances they were of the type usually inseparable from a working-class community, and they had therefore no direct bearing upon the adequacy or otherwise of housing accommodation.

The Town Council are fully alive to the needs of the situation. A housing committee has been formed, and meetings held from time to time. It is well known, and the figures relating to new houses built provide ample evidence, that during the past few years the building by private enterprise of houses for the working classes has almost entirely ceased. In order that the committee might have complete and reliable information concerning the question as a whole, the land-owners, architects, builders, house agents and others, whose interests are directed locally, were invited to attend a conference on the 15th January, 1914.

The conference was representative and well attended, and the whole question was fully discussed.

An inquiry by the Local Government Board as to the housing accommodation for the working classes is impending.

THE HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

These Regulations prescribe the method to be adopted as regards inspection of dwelling-houses, the various points to which attention must be directed, and also the form in which Medical Officers of Health shall annually report on the work accomplished as regards housing.

The following statement shows the work carried out under the Regulations during 1913:—

The number of dwelling-houses inspected for all purposes	1,001
The number of dwelling-houses inspected under and for the purpose of Section 17.....	51

The number of dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health to be unfit for human habitation	14
The number of representations made to the Council with a view to making of Closing Orders	6
The number of Closing Orders made	6
The number of dwelling-houses the defects in which were remedied without the making of Closing Orders	393
The number of dwelling-houses, which, after the making of Closing Orders, were put into a fit state for human habitation	0
Voluntarily closed by owners	10
Houses demolished (voluntarily)	2

OVERCROWDING.

12 cases of overcrowding were dealt with during the year. As a rule, informal notice was sufficient to bring about abatement, but in a few instances the notice could not be complied with on account of the difficulty of procuring other accommodation.

NEW HOUSES.

The following statement kindly supplied by the Borough Surveyor, shows the number of self-contained and tenemented houses erected during the period from April 1905, to December 1913.

April to March.				Self-contained.	Tenement.
1905	„	1906	Buildings erected	38	18
1906	„	1907	„ „	72	40
1907	„	1908	„ „	87	47
1908	„	1909	„ „	10	23
1909	„	1910	„ „	6	21
1910	„	1911	„ „	25	19
1911	„	1912	„ „	21	15
1912	„	1913	„ „	20	3
1913	„	Dec. 1913	„ „	15	1
Total.....				294	187

The tenemented building erected towards the end of 1913, was the Workmen's Hotel situated in Buddle Street, in which 315 separate cubicles are provided.

B. PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

Immediately on the receipt of notification of a case of infectious disease, the infected household is visited by the Medical Officer of Health. Information as to the age, occupation of the patient, the number of rooms, number of occupants, milk supply, probable source of infection, etc., is obtained and entered upon a special form, and when the patient is to be nursed at home, instruction as to isolation and the prevention of spread of infection is given to the person in charge.

Account is also taken of the sanitary condition of the house, the owner being called upon to remedy any defects which may be discovered.

At the termination of the illness or on removal of the patient to hospital, the room, bedding, clothing, etc., are disinfected. Sheets, blankets and articles of clothing used by the patient, are, as a rule, removed to the Isolation Hospital and returned to the owners after disinfection.

Contacts of school age in an infected household are excluded from school for a definite period after disinfection of the house, and are not allowed to return until they have been certified free from infection by the Medical Officer of Health.

When it is deemed necessary, the school is also visited with the object of discovering any child who may also be suffering from, or acting as a "carrier" of the disease, and in the event of excessive prevalence of infectious disease in any particular school, disinfection is promptly carried out.

It has been made the duty of the Head Teachers to exclude and report children suspected to be suffering from, or who may appear to be sickening for, infectious disease, and in doing so they are guided by information contained in a memorandum on infectious diseases with which they have been supplied. They are also instructed to notify without delay any children who are absent from school on account of infectious disease.

In addition to special disinfection, each school in the Borough was disinfected twice during the year.

In no instance was it necessary to resort to school closure.

Bacteriological specimens are sent to the College of Medicine, Newcastle, and investigated free of charge, the medical practitioners and the Health Department, being notified of the results.

In the matter of infectious disease, the majority of the medical practitioners have rendered great assistance to the Health Department.

They have utilised to the fullest advantage the bacteriological aids to diagnosis, and in many instances the Medical Officer of Health has been called into consultation before a definite diagnosis has been made.

The annexed table shows the nature and number of specimens submitted during the year, together with the results of bacteriological examination.

DISEASE SUSPECTED.	Medical Practitioner.		Infectious Diseases Hospital.		Medical Officer of Health.		Total.		Grand Total.
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	
Diphtheria ...	54	171	91	197	59	156	204	524	728
Enteric Fever	31	61	30	20	1	1	62	82	144
Pulmonary Tuberculosis	21	58	...	...	3	4	23	62	85
Totals ...	106	290	121	217	62	161	289	668	957

NOTIFIABLE INFECTIOUS DISEASES.

These fall into two groups, those notifiable under the Infectious Diseases (Notification) Act, 1889 and those notifiable under the Regulations of the Local Government Board issued in accordance with powers under the Public Health Act, 1875, and subsequent Amending Acts.

On 1st January, 1912, pulmonary tuberculosis became compulsorily notifiable generally. Prior to this date, only cases found in general hospitals and among poor law patients were required to be notified.

In the same year, acute poliomyelitis and cerebro-spinal fever was added to the list of notifiable diseases.

In December, 1912, new Regulations were issued by the Board, making all cases of tuberculosis, non-pulmonary as well as pulmonary, compulsorily notifiable after 1st February, 1913.

In this connection, the immediate effect has been to materially increase the number of notifications of infectious diseases.

During the year, 575 notifications were received from medical practitioners, as compared with 405 in 1912, and 210 in 1911.

The notifications received each week during the year are given in Table X.

The Attack-rates and Death-rates per 1,000 of the population for the past three years are shown as follows:—

	1911.	1912.	1913.
Number of cases notified...	210	405	575
Attack-rate per 1,000 population	5·08	9·4	13·1
Death-rate ,, ,,	2·37	1·21	1·81

SMALL POX.

The district was entirely free from small pox during 1913.

SCARLET FEVER.

	1911.	1912.	1913.
No. of cases notified	68	104	199
Attack-rate per 1,000 population	1·6	2·4	4·5
No. of Deaths	2	3	0
Death-rate per 1,000 population...	·04	·06	·00
Case-mortality (per cent.)	2·94	2·8	·00

Scarlet fever was prevalent at all times during the year, the greatest incidence occurring in the last two quarters when the Borough took part in an epidemic which affected the whole country.

The relative prevalence of the disease during the year was as follows:—

1st Quarter.	2nd Quarter	3rd Quarter	4th Quarter.	Total.
25	15	64	95	199

The type of the disease, generally, was mild in character and in several instances the symptoms were so slight that the disease was not recognised until desquamation had occurred.

No death occurred from scarlet fever.

PRIMARY AND SECONDARY CASES.

By a “primary” case is meant the first case in any outbreak occurring in a household, subsequent cases being described as “secondary.”

In 1913, out of a total of 199 cases notified, there were 122 primary, and 77 secondary cases.

RETURN CASES.

During the year, 142 scarlet fever patients were discharged from hospital, and in 15 instances or 10.5 per cent., the return home was followed within a period of six weeks by a further case, commonly referred to as a “return case.”

RETURN CASES.

		Date of Discharge from Hospital.	Date of Notification of Return Case.	Interval.
W.M. and J.M.	...	22/1/13	3/3/13	40 days
M.A.Mc.B.	...	10/4/13	22/4/13	12 „
M.A.Mc.B.	...	10/4/13	30/4/13	20 „
A.H.	...	4/8/13	23/8/13	19 „
C.M.	...	21/9/13	25/9/13	4 „
P.M.	...	6/10/13	11/10/13	5 „
W.C.	...	25/10/13	30/10/13	5 „
M.Mc.B.	...	6/10/13	12/11/13	37 „
L.H., E.H., and A.H.	...	9/10/13	21/10/13	12 „
T.L. and J.L.	...	21/11/13	27/11/13	6 „
E.M.	...	4/12/13	8/12/13	4 „
T.L. and J.L.	...	21/11/13	9/12/13	18 „
T.M.	...	15/10/13	9/12/13	40 „
L.H.	...	2/12/13	22/12/13	20 „
G.H.	...	4/12/13	26/12/13	22 „

The following table shows the incidence of scarlet fever in the various elementary schools in the Borough. It will be seen that with the exception of the Stephenson Memorial School, every school was more or less affected.

School Number.	Name of School.	Number of Cases.
1	Wallsend C.E.	3
2	St. Columba's R.C.	10
3	Buddle Council	21
4	Carville Council	14
5	Bigges Main C.E.	1
6	Richardson-Dees Cl.	20
7	Western Council	34
8	St. Aidan's R.C.	5
9	Addison Potter Council	6
10	Bewicke Council	12
11	Stephenson Memorial Cl.	0
12	Central Council	3
Total ...		129

Of the total number of cases notified, 41, or 20.6 per cent. occurred among children between 1 and 5 years of age; 129, or 64.8 per cent. were of school age and only 14.6 per cent. of the cases were of other ages.

INFECTED HOUSEHOLDS.

In 117 instances 1 case only occurred in the house	117
In 22 instances 2 cases occurred in the house	44
In 5 instances 3 cases occurred in the house	15
In 3 instances 4 cases occurred in the house	12
In 1 instance 5 cases occurred in the house	5
In 1 instance 6 cases occurred in the house	6
149 infected Households	199 cases

DIPHTHERIA AND MEMBRANEOUS CROUP.

	1911.	1912.	1913.
No. of cases notified	88	137	97
Attack-rate per 1,000 population	2.1	3.1	2.2
No. of Deaths	6	12	4
Death-rate per 1,000 population...	.14	.27	.09
Case-mortality (per cent.) ...	6.8	8.7	1.1

Diphtheria was almost equally prevalent during the four quarters of the year, the greatest incidence being in the first quarter.

The disease was generally of a mild character, and at no time assumed epidemic proportions. The cases were fairly equally distributed over the Borough and, with the exception of cases occurring in the same household, connection between them was seldom established.

The number of cases notified shows a welcome reduction compared with previous years. Only 4 deaths occurred and these were for the most part among very young children.

In order to assist medical practitioners in the early diagnosis of diphtheria, swabs from throats of suspected patients are examined free of charge at the College of Medicine, Newcastle. The privilege has been largely utilised and has been instrumental in securing a definite diagnosis of many cases, which in view of the mild nature of the attack, might otherwise have been regarded as of simple origin.

The following table shows the incidence of diphtheria in the various schools:—

School Number.	Name of School.	Number of Cases.
1	Wallsend C.E.	3
2	St. Columba's R.C.	0
3	Buddle Council	6
4	Carville Council	3
5	Bigges Main C.E.	0
6	Richardson-Dees Cl.	16
7	Western Council	3
8	St. Aidan's R.C.	0
9	Addison Potter Council	4
10	Bewicke Council	3
11	Stephenson Memorial Cl.	1
12	Central Council	1
	Total ...	40

Of the 97 cases notified, 28, or 28.7 per cent. were under 5 years of age; 40, or 41.2 per cent. were of school age, and 29, or 29.9 per cent. were of other ages.

With the object of discovering other children suffering from, or acting as carriers of the disease, swabs were invariably obtained from the throats of contacts in an infected household and when necessary also from suspicious cases in the school attended by the scholar.

All children in respect of whom a positive return was obtained, were carefully supervised. A free supply of formalin tabloids was provided, and the parent was warned of the risk of spread of infection to other children in the house. In the event of clinical symptoms supervening, information was given

to the medical attendant, and the usual procedure followed. Teachers have instructions to refer children suffering from sore throats to the Medical Officer of Health for investigation.

During the year, 177 swabs were taken from the throats of contact children and also from those sent to the Department by the head teachers, of these, 52 were positive and 125 negative.

7 children showing a positive return subsequently developed clinical symptoms of diphtheria and were removed to hospital.

Owing to the diminished incidence of the disease fewer swabs were submitted by the medical practitioners. Altogether 728 swabs were examined, 204 being positive and 524 negative.

The diphtheria at present met with is not of a very infectious nature. Though many are exposed to infection, comparatively few suffer from the disease, but it is probable that many become carriers of infection. As illustrating the generally non-virulent type of the disease, no less than 84 of the 97 notified cases, occurred in houses without any further extension of the disease to another member of the household.

In 5 instances a second case occurred and in 1 instance a third case.

ENTERIC FEVER.

	1911.	1912.	1913.
No. of cases notified	21	23	49
Attack-rate per 1,000 population	·5	·5	1·1
No. of Deaths	5	3	6
Death-rate per 1,000 population...	·12	·06	·14
Case-mortality (per cent.) ...	23·8	13·0	12·2

Although 6 deaths from enteric fever occurred during 1913, 2 of these referred to cases notified in the previous year.

During the first quarter of the year only 1 case of enteric fever was notified; 8 cases occurred in the second quarter; and the rise in prevalence of the disease continued during the remaining two quarters when 11 and 29 cases, respectively, were notified.

It will be seen that enteric fever was prevalent over the whole district and that every ward was more or less affected, the highest incidence being in Howdon, Carville, Willington, and Willington Quay Wards.

WARD DISTRIBUTION.

Northumberland	1
Wallsend	3
Carville	10
Buddle	2
Howdon	13
Holy Cross	3
Hadrian	1
Willington	9
Willington Quay	7

AFFECTED HOUSES.

In 36 instances 1 case only occurred in the house	36
In 2 instances 2 cases occurred in the house ...	4
In 1 instance 4 cases occurred in the house ...	4
In 1 instance 5 cases occurred in the house ...	5
40 infected households	49 cases

The mild nature of the attack was an outstanding feature in the majority of the cases. It will be seen earlier in the Report that the average stay in hospital of 36 cases was only 26.8 days.

On admission, these cases had practically no clinical symptoms of enteric fever, the diagnosis, almost without exception, having been based upon a positive result of a blood test. Many also, when notified, were not even being confined to bed, and in one instance delay in removal to hospital was occasioned by the absence of the patient from the house.

Further investigation of these cases showed that the patients as a whole suffered from similar symptoms,—headache, vomiting and abdominal pains being the most predominant,—which subsided in the course of a few days. Bacteriological examination of the fæces and urine however, showed the presence of the bacillus of enteric fever in five instances, and in view of the similarity of the cases it may safely be inferred that the remainder were also true, though mild, cases of enteric fever.

Of the remaining cases notified as enteric fever, 5 were wrongly diagnosed; and 8 were typical and the character of the illness severe. Among the latter there were 4 deaths.

Two of the male patients were employed at the Manchester Docks, and within two weeks of their return to Wallsend developed symptoms of enteric fever. It is therefore probable that they received their infection in Manchester. Intimation of these cases was of course sent to the Medical Officer of Health of Manchester.

No case of enteric fever was traceable to the milk or water supply, and none definitely to other food, such as shell fish. Suspicion was attached to two cases which had partaken of prawns a few weeks before the illness, but, owing to the difficulties in the way of investigation, no definite connection could be established.

The 49 notified cases concerned 40 houses, of which number 10 were provided with water-closets, 28 had cell-privies and 2 ashpit-privies.

To what extent the cell-privies and ash-pit privies have influenced the prevalence of enteric fever during the year it is difficult to say, but there can be no doubt that the disappearance from Wallsend of these types of convenience will result in a proportionate diminution of the disease.

The annexed table shows an analysis of the cases of enteric fever notified during 1913.

An Analysis of the Enteric Fever Cases notified during 1913.

Date of Notification.	Age	Sex	Address	Sanitary Conveniences			Nuisances.	Remarks.
				Water-closet.	Cell Privy.	Ashpit Privy.		
2/1/13	24	M	31 Glovers Row	...	1	...	...	Patient also suffering from Pneumonia.
19/4/13	45	M	Albion Inn, Potter St.	...	1	...	...	...
29/4/13	26	F	26 Birkett Street	...	1	...	...	...
28/5/13	48	M	19 Hadrian Road	...	1	...	...	...
13/6/13	10	M	Bewicke Road	1	...	...	...	...
13/6/13	7	F	do.	1	...	...	...	Sister of preceding case.
13/6/13	5	F	do.	1	...	...	...	do.
13/6/13	3	M	do.	1	...	...	...	Brother of preceding case
4/7/13	13	M	12 Rawdon Road	...	1	...	Overcrowding—two families living in two rooms.	...
4/7/13	8	M	do.	...	1	...	...	Brother of preceding case
4/7/13	7	F	do.	...	1	...	...	Sister
6/7/13	5	F	do.	...	1	...	...	Probably infected fr'm previous cases in same house.
10/7/13	9	M	14 Rawdon Road	...	1	...	Overcrowding—two families living in three rooms.	4 cases previously notified from next house.
12/7/13	30	F	12 Rawdon Road	...	1	...	See above, same address.	Carrier case discovered at 10 Rawdon Rd., who had Enteric Fever 10 yrs. ago, and was a frequent visitor to Nos. 12 & 14 Rawdon Rd. where she occasionally assisted in cooking.
15/7/13	19	F	27 Philipson Street	1	...	...	...	...
27/7/13	45	M	9 Burn Terrace	...	...	1	Defective sink-waste	...
15/8/13	30	F	18 Hodgson Street	...	1	...	...	...
21/8/13	31	M	Churchill Road	1	1	...	...	...
4/9/13	30	F	72 Holly Avenue	...	1	...	...	Probably infected in Newcastle where she was employed as cook 2 weeks prior to illness.
21/9/13	30	F	10 Nelson Street	...	1	...	...	...
19/10/13	5	F	69 Orde Avenue	...	1	...	Overcrow'd'g. Chok'd gully in yard.	...
21/10/13	36	M	206 High St. East	...	1	...	...	Probably infected in M/chester where he was employed three weeks prior to illness.
24/10/13	23	F	26 Carlyle Street	...	1	...	...	...
29/10/13	36	F	Kings Road	1	...	...	...	Illness follow'd operation.
30/10/13	23	M	9 Denham Terrace	...	1	...	Defective sink-waste	Nephew of case at 206 High St. E. which he frequently visited.
30/10/13	47	M	2 Main Street	1	...	...	Ill-kept water-closet	Patient had Enteric Fever 17 years ago.
30/10/13	44	M	18 Burn Terrace	...	...	1	Defective sink-waste	...
1/11/13	32	M	4 Shaftoe Street	1	...	...	...	...
1/11/13	21	F	1 George Street	1	...	...	...	...
2/11/13	42	M	2 Dock Road	...	1	...	...	Wife had Enteric Fever 22 yrs. ago.
2/11/13	36	M	44 Orde Avenue	...	1	...	Defective sink-waste	...
6/11/13	12	F	101 George Street	...	1	...	...	Mussels eaten 1 week before illness & prawns 3 weeks before.
7/11/13	48	F	2 Rosehill Gardens	...	1	...	...	...
8/11/13	24	F	149 Bewicke Road	...	1	...	...	Prawns partaken of freely.
14/11/13	47	M	36 Bewicke Street	...	1	...	...	Probably infected in M/chester where he was employed two weeks prior to illness.
15/11/13	50	F	13 Westmoreland Av.	...	1	...	...	...
17/11/13	30	F	4 Shaftoe Street	1	...	...	...	Wife of previous case from same address.
21/11/13	39	M	61 Bewicke Street	...	1	...	...	...
23/11/13	15	F	44 Orde Avenue	...	1	...	...	Daughter of previous case from same address.
24/11/13	19	F	5 Atkinson Terrace	...	1	...	Choked gully in yd.	...
27/11/13	43	M	10 George Street	...	1	...	...	...
29/11/13	30	M	1 Sharpe Road	...	1	...	Overcrow'd'g, 6 lo'gers. Ill-kept privy.	...
1/12/13	40	M	5 Clyde Street	1	...	...	...	...
3/12/13	34	F	11 Roman Wall	1	...	...	...	...
4/12/13	24	F	40 Bewicke Road	...	1	...	...	...
5/12/13	28	M	68 George Road	...	1	...	...	...
5/12/13	46	M	50 Cumberland St.	1	...	...	...	...
12/12/13	21	F	12 Clyde Street	...	1	...	...	...
17/12/13	17	F	7 Keelman's Row	...	1	...	Overcrowding—10 in 2 rooms.	...

CONTINUED FEVER.

Only 1 case of continued fever was notified during 1913.

ERYSIPELAS.

	1911.	1912.	1913.
No. of cases notified	19	22	24
Attack-rate per 1,000 population	·4	·5	·5
No. of Deaths	2	4	1
Death-rate per 1,000 population...	·05	·09	·02
Case-mortality (per cent.) ..	10·5	18·1	4·1

Erysipelas affected all parts of the Borough, with the exception of Wallsend and Howdon Wards.

PUERPERAL FEVER, ACUTE POLIOMYELITIS,
CEREBRO-SPINAL FEVER.

No case of *puerperal fever, acute poliomyelitis or cerebro-spinal meningitis* was notified during the year.

NON-NOTIFIABLE DISEASES.

These diseases are not compulsorily notifiable under the Infectious Diseases Act, but a system has for some time been in vogue in the Borough whereby notifications are received from the head teachers and school attendance officers.

MEASLES.

The severity of the epidemic of measles which was raging during the latter months of 1912, was especially felt during the first quarter of the year. The epidemic showed signs of abating in the middle of March and its proportions thereafter gradually diminished.

Altogether 25 deaths occurred, giving a death-rate of .57 per 1,000 of the population, as compared with 14 deaths and a death-rate of 3.2 in 1912. All the deaths, with the exception of two, occurred in the first quarter of the year, the districts most seriously affected being the Wallsend, Carville, and Howdon Wards. The cases of measles not likely to be attended by a medical practitioner were visited and efforts were made to persuade the parents to properly isolate the patient and also to secure the services of a doctor.

Scholars suffering from measles were excluded from school for four weeks from the commencement of the illness, and children of school age in an infected household, who had not already had the disease, were kept from school for two weeks from the time they were last exposed to infection.

The seriousness of measles, especially to young children, is not generally appreciated. Many parents consider the disease of little account and the opinion is widely held that every child must eventually be attacked, and the sooner it gets over the trouble the better, and, in the event of the disease occurring in a household no effort is therefore made to prevent the spread of infection to other children.

It is a recognised fact that susceptibility to, and fatality from, measles diminishes as age advances; a review of table iii will show that of the 25 deaths from the disease no less than 23 were of children under 5 years of age, and therefore our aim should be to prevent an attack, especially in the early years of life, rather than to willingly expose them to infection.

WHOOPING COUGH.

17 deaths from whooping cough were registered in 1913, as compared with 7 and 15 in the previous two years. All deaths were of children under 7 years of age, and 15 were under 5. The death-rate was equal to .39 per 1,000 population as compared with 7 deaths and a death-rate of .16 in 1912.

As in the case of measles, most of the deaths were caused by acute inflammatory conditions of the lungs or bronchial tubes, and these complications or sequelæ were most common during the autumn and early spring.

CHICKEN POX.

There was an increase in the prevalence of chicken pox during the year, but no deaths occurred.

DIARRHŒA AND ENTERITIS.

The deaths from diarrhœa and enteritis, which includes the various epidemic disorders of the alimentary tract in children under 2 years of age, number 25, as compared with 61 in 1911, and 13 in 1912.

The mortality rate was .56 per 1,000 of the population, being higher than in the previous year, but considerably lower than the figure for 1911.

20 of the deaths were of children under 1 year of age and 5 were between 1 and 2 years of age.

The disease was most prevalent during the late summer and autumn months and the deaths affected every ward, the greatest number occurring in Carville, Wallsend, and Hadrian Wards.

The monthly occurrence of deaths from diarrhœa and enteritis was:—

Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Totals.
...	2	1	1	1	1	4	4	5	5	2	1	27

C. PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

On 1st January, 1912, an order of the Local Government Board came into operation, under which all forms of pulmonary tuberculosis were made compulsorily notifiable and remained in force until 1st February, 1913, when all forms of tuberculosis, pulmonary as well as non-pulmonary became compulsorily notifiable.

	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.
	1911.	1912.	1913.	1913.
No. of cases notified	13	117	119	86
Attack-rate per 1,000 population	·3	2·7	2·1	1·9
No. of Deaths	47	41	32	37
Death-rate per 1,000 population...	1·1	·95	·73	·84

The following table gives the deaths and death-rates from pulmonary tuberculosis in the respective Wards for the last three years:—

Ward.	1911.		1912.		1913.	
	Number	Rate.	Number	Rate.	Number	Rate.
Northumberland ...	1	·29	4	1·1	2	·57
Wallsend	6	1·4	2	·47	3	·69
Carville	6	1·5	6	1·0	3	·49
Buddle	4	·6	9	1·4	4	·61
Holy Cross	7	1·2	6	1·0	4	·68
Hadrian	8	1·6	5	1·0	3	·59
Willington	4	1·6	1	·38	5	1·9
Willington Quay ...	8	1·9	2	·45	1	·22
Howdon	3	·5	6	1·1	7	1·2
Borough of Wallsend	47	1·1	41	·95	32	·73

For the first time figures are available as to the notified cases of pulmonary and non-pulmonary tuberculosis, but it is to be feared that the notifications received do not fully represent the actual number of cases in the Borough, since at the present time the notifications for the most part concern only those who have sought medical relief. A clearer knowledge of the prevalence of tuberculosis will be gained when the arrangements which have recently been made by the County Council for the establishment and working of a tuberculosis dispensary in Wallsend are carried into effect. Proper control will then be exercised over contacts, and this no doubt will lead

to the discovery and notification of many early cases which would otherwise have remained unknown until definite illness supervened.

Nearly every notified case of pulmonary tuberculosis was visited by the Medical Officer of Health. Enquiry was made as to the duration of the illness; the probable source of infection; the methods adopted for limiting the spread of infection, etc., the information obtained being recorded on a special form.

Account was also taken of the type and rental of the house; the number, ages and occupations of the inmates. An inspection of the house was made and any defects requiring attention were noted and reported to the Sanitary Inspector.

Verbal and printed advice as to precautionary measures to be taken to prevent the spread of infection was systematically given and the cases re-visited at frequent intervals.

The health of other members of the household was enquired into and those suffering from suspicious signs of the disease were recommended to consult their medical attendant without delay.

Children of school age suffering from pulmonary tuberculosis are kept under constant supervision. They are examined at regular intervals at the Inspection Clinic, a history of their progress is kept, and cases in which there is cough with expectoration are excluded from school.

Where a death has been certified as having occurred from phthisis, the infected bedroom, bedclothes, etc., are, with the consent of the relatives, disinfected as soon as possible after the burial of the patient.

The tables given below show the sex, age and occupation of the cases notified together with other information obtained by domiciliary visitation.

ADULT FEMALES.

No.	Age.	Occupation.	No. of Rooms in House.	Sleeping Accommodation.	Disposal of Sputum.
1	42	Barmaid	4	Separate bedroom	Burnt
2	28	Home	3	" "	"
3	32	"	2	Shares bedroom	"
4	56	"	4	Separate bedroom	"
5	14	"	2	Shares bedroom	"
6	19	"	...	...	...
7	21	Ropery Worker	4	Separate bedroom	Burnt
8	23	Home	5	Shares bedroom	None
9	50	"	2	" "	Burnt
10	22	"	3	Separate bedroom	"
11	27	"	4	" "	"
12	18	"	2	Shares bedroom	"
13	21	Machinist	2	" "	None
14	27	Home	3	Separate bedroom	Burnt
15	28	"	...	...	...
16	43	"	5	Separate bedroom	Burnt
17	20	"	3	Shares bedroom	Not treated
18	42	Nurse	10	Separate bedroom	Burnt
19	52	Home	2	Shares bedroom	"
20	24	"	3	Separate bedroom	"
21	53	"	2	Shares bedroom	None
22	25	"	4	Separate bedroom	Burnt
23	45	"	3	Shares bedroom	"
24	47	"	3	Separate bedroom	"
25	21	Cook	3	" "	Not treated
26	16	Home	...	...	...
27	54	"	3	Shares bedroom	Not treated
28	24	"	3	" "	Burnt

ADULT MALES.

No.	Age.	Occupation	No. of Rooms in House.	Sleeping Accommodation.	Disposal of Sputum.
1	47	Farm Labourer	...		...
2	22	Carpenter	5	Shares bedroom	Burnt
3	18	Hairdresser	5	Separate bedroom	"
4	39	Labourer	2	Shares bedroom	"
5	33	Gold Miner	7	Separate bedroom	"
6	52	Labourer	3	Shares bedroom	"
7	33	Brass Finisher	5	Separate bedroom	"
8	23	Clerk	6	" "	"
9	28	Labourer	5	" "	"
10	15	Driver	4	Shares bedroom	"
11	23	Shipwright	...		...
12	39	Labourer	2	Shares bedroom	Burnt
13	30	Labourer	3	" "	"
14	57	Labourer	...		...
15	44	Engineer	...		...
16	28	Miner	...		...
17	26	Labourer	2	Shares bedroom	Burnt
18	16	Shipyard Marker	3	" "	None
19	38	Labourer	2	" "	Burnt
20	30	Boilermaker	5	" "	"
21	26	Seaman	5	Separate bedroom	Not treated
22	40	Boilermaker	4	" "	Burnt
23	26	Baker	4	" "	"
24	25	Labourer	2	Shares bedroom	"
25	43	Labourer	4	Separate bedroom	"
26	17	Plater	3	" "	"
27	22	Labourer	7	" "	"
28	30	Boilermaker	3	Shares bedroom	"
29	28	Labourer	2	Bed in kitchen	Not treated
30	21	Miner	6	Separate bedroom	Burnt
31	21	Labourer	2	Shares bedroom	"
32	46	Motorman	3	Separate bedroom	"
33	21	Miner	3	Shares bedroom	"
34	24	Brass Moulder	2	Separate bedroom	Not treated
35	19	Apprentice Riveter	5	" "	Burnt
36	58	Riveter	2	Shares bedroom	"
37	38	Bricklayer	3	" "	Not treated
38	32	Shoemaker	3	" "	None
39	22	None	2	" "	"
40	17	Clerk	5	Separate bedroom	"
41	20	Caulker	4	" "	Burnt
42	46	Iron Worker	3	Shares bedroom	None
43	45	Riveter	2	Separate bedroom	Not treated
44	33	Miner	4	Shares bedroom	Burnt
45	51	Labourer	2	" "	Not treated
46	40	Engineer	3	" "	"

In 5 instances the medical attendant intimated that visitation was not desired, and in 5 cases notification was made so late that death occurred before a visit could be made.

It is unnecessary to give a complete account of all the home conditions discovered at the first visit, but a short summary will be of interest.

Number of one-roomed house	1
Number of two-roomed houses	30
Number of three-roomed houses	39

Number of four-roomed houses	23
Number with five rooms or over	16
Number of cases having separate bedrooms	39
Number of cases sharing bed or bedroom with others	70
Number of cases of overcrowding	8
Number of cases of unsatisfactory ventilation	9
Number of cases in which no means were being taken to prevent the spread of infection by the sputum	12

The age and occupation of those who died during the year were : —

MALES.			FEMALES.		
No.	Age.	Occupation.	No.	Age.	Occupation.
1	44	Riveter.	1	28	Home.
2	47	Plater.	2	55	"
3	35	Marine Engineer.	3	15	...
4	56	Shipwright.	4	7	School.
5	18	Hairdresser.	5	19	Home.
6	26	Labourer.	6	49	"
7	44	Motorman.	7	28	"
8	60	Labourer.	8	36	"
9	19	Plater.	9	29	"
10	72	Secretary.	10	23	"
11	43	Gold Miner.	11	14	...
12	30	Riveter.	12	17	Home.
13	54	Riveter.	13	43	"
14	45	Sheet Iron Worker.	14	15	"
15	33	Hairdresser.	15	47	"
16	2	...	16	31	"

CHILDREN—MALES.

No.	Age.	No. of Rooms in House.	Sleeping Accommodation.	Disposal of Sputum.
1	8	2	Separate Bedroom	Burnt
2	12	1	Shares Bedroom	"
3	6	3	" "	"
4	13	3	" "	"
5	13	2	Separate Bedroom	None
6	13	3	Shares Bedroom	Burnt
7	10	4	Separate Bedroom	"
8	6	3	Shares Bedroom	"
9	6	2	" "	"
10	5	2	" "	None
11	2	2	" "	"
12	8	3	" "	"

CHILDREN—FEMALES.

No.	Age.	No. of Rooms in House.	Sleeping Accommodation.	Disposal of Sputum.
1	13	4	Separate Bedroom	Burnt
2	9	3	Shares Bedroom	"
3	11	6	Separate Bedroom	"
4	10	4	" "	None
5	10	4	Shares Bedroom	Burnt
6	13	3	" "	"
7	14	3	" "	"
8	12	3	" "	None
9	12	3	" "	Burnt
10	5	...	...	"
11	7	4	Shares Bedroom	Burnt
12	11	4	" "	"
13	12	2	" "	"
14	3	4	" "	None
15	7	...	...	"
16	8	3	Shares Bedroom	Burnt
17	11	3	Separate Bedroom	"
18	4	2	Shares Bedroom	"
19	11	2	" "	"
20	10	3	Separate Bedroom	"
21	8	4	Shares Bedroom	"
22	12	4	" "	None
23	10	2	" "	"
24	10	4	" "	"
25	11	4	" "	"
26	8	3	" "	Burnt
27	10	3	" "	None
28	5	4	" "	"
29	11	2	" "	Burnt
30	12	3	" "	Not treated
31	12	3	" "	None
32	8	2	" "	"
33	12	3	" "	"

OTHER FORMS OF TUBERCULOSIS.

The 87 cases of non-pulmonary tuberculosis were comprised of the following:—

Abdominal tuberculosis	18
Glandular tuberculosis	35
Bones and joints	20
Tuberculous meningitis	6
Other forms	8

D. MEANS FOR PREVENTING MORTALITY IN
CHILDBIRTH AND IN INFANCY.

The Midwives' Act 1902, is administered by the County Council.

NOTIFICATION OF BIRTHS ACT.

Under the provisions of this Act (Section 1), "In the case of every child born in an area in which this Act is adopted, it shall be the duty of the father of the child, if he is actually

“residing in the house where the birth takes place at the time of its occurrence, and of any person in attendance upon the mother at the time of, or within six hours after, the birth, to give notice in writing of the birth to the Medical Officer of Health of the district in which the child is born in the manner provided by this section,” *i.e.* within 36 hours of the occurrence of the birth.

Out of the 1,287 births registered in Wallsend in 1913, 1,255 births were notified under the Act, giving a deficiency on the total number of registered births of 32, as compared with 51 in the previous year.

171, or 13.6 per cent., were notified by the parents or other persons; 659, or 52.5 per cent. by the midwives and 425, or 33.8 per cent. by the medical practitioners; 32, or 2.5 per cent. were not notified.

In a comparatively few instances the cases were attended in their confinements by unqualified midwives. In regard to these, endeavour was made to obtain sufficient evidence to warrant prosecution, but as this was not forthcoming it was useless to notify the supervising authority. Nevertheless, these unqualified persons were duly warned of the penalties involved by their continuing to practice midwifery for gain.

The births chosen for visitation were for the most part those which had occurred in houses where the services of the Health Visitor were most likely to be needed.

Cases attended by a doctor were not visited, except by special request, and no visit was made to midwives' cases unless the circumstances demanded it.

As a rule, the visits were made directly after notification, subsequent visits being made at frequent intervals to infants found at the first visit to be delicate or not likely to thrive well.

Verbal and printed instruction was given in infant care and management and particulars as to the nature of feeding adopted, the state of health and weight of the infant at birth, the general hygienic conditions and environment of the home, etc., were noted and recorded upon a special form.

Steps were taken to correct, as far as possible, undesirable conditions, insanitary and otherwise.

There seems to exist in the minds of some parents a prejudice against weighing a newly-born infant. The procedure is regarded as an ill-omen and one which will surely be followed by serious illness or even death within the first year of the child's life. Our efforts to counteract this superstition are, however, meeting with success, and permission to weigh the children is being given in an increasing number of cases. The progress of each case is recorded and the parents of children showing either a loss, or an insufficient gain of weight, are advised to consult their medical attendant without delay.

Particulars of the work undertaken by the Health Visitor during the year are given in the Table vi.

The principal causes of infant deaths are diarrhoeal diseases, respiratory diseases, and developmental and wasting diseases.

The following table shows the number of deaths from these diseases during the past three years.

	1911.	1912.	1913.
Diarrhœal Diseases	44	7	20
Respiratory „	32	13	36
Developmental and Wasting Diseases	56	72	52

Diarrhœal diseases, which to a very great extent account for the annual fluctuations in the infant mortality-rate and whose prevalence largely depends upon the vagaries of climate, combined with personal and domestic uncleanness, are the most easily prevented of infantile diseases. During the year special attention has been devoted to the prevention of unnecessary accumulation of manure in stables in the vicinity of dwelling-houses, a more frequent scavenging of the privies in the congested areas has been effected, and the policy of substituting water-closets for ashpit-privies has been steadily continued.

Bearing in mind the ætiology of diarrhœal diseases, the results of such active measures are bound to be reflected in a permanent reduction in deaths from these diseases.

36, or 23.3 per cent. of the total infant deaths were due to bronchitis and pneumonia, the incidence in each quarter of the year being as follows:—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.
Bronchitis ...	9	3	...	2	14
Pneumonia ...	11	4	1	6	22
Total ...	20	7	1	8	36

There can be no doubt that climate plays an important part in the prevalence of respiratory diseases, but the mortality from these causes is unnecessarily high, and many infant lives would be saved provided proper care was exercised by the parents. It is no uncommon sight to see children of tender years taken out late at night exposed to all kinds of weather, and the mothers, rather than forego amusement, frequently take their infants with them to places of entertainment, where the atmospheric conditions are often scarcely fit for adults much less for infants. The wonder is, not that some of them die, but that any of these ill-used children survive.

One of the most pleasing features of the statistics relating to infant mortality is the great reduction as compared with the year 1912, in the number of fatalities ascribed to developmental and wasting diseases. These diseases in 1913, caused 52

deaths or 33.7 per cent. of the total infant deaths, while in 1912, no less than 72 died from these causes, or a percentage of total infant deaths of 56.2.

For the most part, these causes manifest themselves at the birth of the infant and depend on unsatisfactory ante-natal circumstances, connected with the health or condition of the mother.

They are highest at birth and during the first days and weeks of life, thereafter falling rapidly from week to week until they reach smaller and smaller proportions in the second and third months, and become practically insignificant at the end of the sixth month. They are causes over which a Local Authority has but little immediate control, for to bring about improvement in mortality from such causes it will be necessary to (1) improve the health of the expectant mother, (2) to maintain the health of the suckling mother, (3) to avoid premature or unnecessary weaning and (4) to protect the infant from adverse climatic conditions.

As part of the school curriculum lessons in personal and general hygiene are given to the older girls, and a proposal has been adopted by the Education Committee to extend the subject so as to include instruction in mothercraft, and arrangements have accordingly been made for the School Nurse to conduct a course of lessons in this subject. This is certainly a step in the right direction, and will ensure that every girl on leaving school will possess useful knowledge respecting infant hygiene. Among other things, they will be taught the care of infants, the preparation of infant food, the relative nutritive value of various diets, and how to make rational and economical clothes for an infant.

That the dissemination of knowledge among nursing mothers respecting the feeding and management of infants has produced good results cannot be denied, but it is felt that these mothers should possess the requisite knowledge prior to pregnancy, and I look forward to the time when it will be possible to establish a school for mothers in Wallsend.

This, in conjunction with a baby's clinic, would become a popular and useful institution in the Borough, and would, together with an advance in sanitation, tend to a permanent reduction in infant mortality, especially in the causes of deaths now assigned to ante-natal causes.

E. VITAL STATISTICS.

POPULATION.

The population of the Borough at the middle of the year was estimated to be 43,700, or an increase of 2,357 over the census population of 1911.

The natural increase of the population, or in other words, the excess of the number of births over deaths was 628, as compared with 801 in the preceding year.

POPULATION OF EACH WARD.

Ward.	Population at middle of 1913.
Northumberland	3,465
Wallsend	4,287
Carville	6,065
Buddle	6,506
Holy Cross	5,813
Hadrian	5,008
Willington	2,610
Willington Quay	4,470
Howdon	5,476
Borough of Wallsend	43,700

AREA AND POPULATION OF EACH WARD.

The total area of the Borough is 3,543.993 acres. The Density of the Population, or the number of persons per acre in the whole district and in each Ward, was as follows:—

Ward.	Area in Acres.	Estimated Population at middle of year, 1913.	Density of Population.
Northumberland	356.374	3,465	9.7
Wallsend	262.718	4,287	16.3
Carville	79.280	6,065	76.5
Buddle	687.799	6,506	9.4
Holy Cross	369.400	5,813	15.7
Hadrian	296.875	5,008	16.8
Willington	1,127.187	2,610	2.3
Willington Quay	182.730	4,470	24.4
Howdon	181.630	5,476	30.1
Totals	3,543.993	43,700	12.3

The number of inhabited houses at the end of the year was 8,798, giving an inhabited house-rate of 4.9.

The following statement shows the birth-rate, death-rate and infant mortality-rate in England and Wales and in certain parts of the country including the Borough of Wallsend for the year 1913.

	Annual rate per 1,000 living			Deaths under 1 yr. to 1,000 Births.
	Births.	Deaths.		
		Crude.	Stan- dardized	
England and Wales	23·9	13·7	13·4	109
96 Large Towns, including London..	25·1	14·3	14·7	116
145 Smaller Towns	23·9	12·8	13·0	112
England and Wales less the 241 Towns	22·2	13·1	12·1	96
London	24·8	14·2	14·2	104
Borough of Wallsend	29·7	15·1	15·7	119

DEATHS.

The number of deaths registered as having occurred in the Borough was 571, or 81 more than in the previous year.

Before arriving at the total number of deaths belonging to the district, it is necessary to make certain corrections regarding (a) "Inward transfers," that is, deaths of persons belonging to, but registered in districts without the Borough, and (b) "Outward transfers" or deaths of persons not belonging to, but registered within the Borough. (a) The "Inward transfers" numbered 93. These deaths occurred in the following institutions or places, the causes of death being set out in Table .

Deaths of Residents Not Registered in the Borough.

Institution or District.	Total Deaths.
Union Workhouse, Tynemouth ...	27
Northumberland County Asylum ...	8
Royal Victoria Infirmary, Newcastle	35
Fleming Memorial Hospital ,, ...	10
Lying-in Hospital, Newcastle ..	3
Union Infirmary, Bishop Auckland ...	2
Accident Hospital, Walker... ..	2
Pond near Walker Gate, Newcastle ...	1
Millwall Docks, Poplar	1
Gateshead U.D.	1
Hebburn Hall Infirmary, Hebburn ...	1
The River Tyne	2
Total	93

(b) There were 5 "Outward transfers."

To determine the actual number of deaths of residents, the inward transfers must be added to, and the outward transfers deducted from, the number of deaths registered within the Borough. The resultant figure which is 659, is equal to a "crude" death-rate of 15.1 per 1,000 of the population, as compared with 13.0 in the preceding year.

In comparing the death-rate with other towns, and with England and Wales, the age and sex constitution of the population has to be taken into account. For instance, the average age at death of females is greater than that of males, and in comparing the death-rates of any two towns, the one containing a preponderance of women would show a correspondingly low death-rate, other things being equal.

Of more importance is the age distribution of the population. The tendency to death is greatest among persons living at the extremes of life, *i.e.*, among infants and old people, and a district containing a large proportion of persons at the extremes of life would therefore have a correspondingly high death-rate, other things being equal. To overcome these discrepancies, a "factor for correction" must be obtained from the "standard" death-rate.

The factor for correction for Wallsend is 1.0425. The recorded death-rate is multiplied by the factor for correction, the resulting figure giving the "corrected" death-rate of 15.7 per 1,000 of the population.

The following table shows the deaths and death-rates in the respective Wards for the last three years.

Deaths and Death Rates in each Ward.

Ward.	Deaths and Death Rates per 1,000 Population.					
	1911.		1912.		1913.	
	Number.	Rate.	Number.	Rate.	Number.	Rate.
Northumberland ...	43	12.8	50	14.5	62	17.8
Wallsend ...	56	13.7	47	11.1	72	16.8
Carville ...	81	14.2	80	13.4	105	17.3
Buddle ...	65	10.5	71	11.1	69	10.6
Holy Cross ...	85	15.4	84	14.8	88	15.1
Hadrian ...	67	14.0	61	12.4	61	12.1
Willington ...	48	19.7	31	12.4	42	16.1
Willington Quay ...	68	16.4	67	15.2	74	16.5
Howdon ...	68	13.1	69	12.8	86	15.9
Borough of Wallsend	581	14.0	560	13.0	659	15.1

CHIEF CAUSES OF DEATH.

The annexed table denotes the chief causes of death, and the corresponding mortality rates for 1913, and the two previous years.

Chief Causes of Death.

Causes of Death.	Deaths and Death Rates per 1,000 population.					
	1911.		1912.		1913.	
	Number.	Rate.	Number.	Rate.	Number.	Rate.
Enteric Fever.....	6	.12	3	.06	6	.14
Measles	8	.19	14	.32	25	.57
Scarlet Fever	2	.04	3	.06	0	.00
Whooping Cough	15	.38	7	.16	17	.39
Diphtheria	6	.14	12	.27	4	.08
Erysipelas	2	.04	4	.09	1	.02
Pulmonary Tuberculosis	47	1.13	41	.95	32	.73
Tuberculous Meningitis.....	14	.33	15	.34	19	.43
Other Tuberculous Diseases	24	.58	16	.37	18	.41
Cancer	25	.6	26	.6	44	1.01
Bronchitis	51	1.23	56	1.3	55	1.25
Broncho-Pneumonia	21	.5	20	.46	36	.82
Pneumonia	41	.99	21	.49	37	.85
Other Diseases of Respiratory Organs	1	.02	6	.14	2	.04
Diarrhoea and Enteritis.....	61	1.47	13	.3	27	.61
Nephritis.....	9	.21	11	.25	16	.36
Congenital Malformations.....	7	.16	4	.09	7	.16
Premature Birth.....	20	.48	37	.86	26	.59
Congenital Debility, Atrophy and Marasmus	29	.7	33	.76	19	.43

BIRTHS.

The number of births registered in the Borough amounted to 1,287, equal to a birth-rate of 29.5 per 1,000 of the population.

In addition, the Registrar-General transferred 10 births—5 males, and 5 females—belonging to Wallsend, but which had occurred in other districts. As the transfer of these births was not accompanied by the home addresses of the parents, they could not be allocated to the Wards to which they belonged. The figures relating to birth-rates, and rates of infant mortality in the various Wards, are therefore calculated upon the number of births registered in the District.

Of the total 1,297 births recorded, 660 were males and 637 females. The births recorded were equal to a birth-rate of 29.7 per 1,000 of the population, as compared with 31.6 in 1912, and 31.3 in 1911.

The illegitimate births numbered 41—22 males and 19 females—the number being equal to an illegitimate birth-rate of .94 per 1,000 of the population, or a ratio of 31.6 to every 1,000 births.

The birth-rate in the Municipal Wards, was highest in Carville, Wallsend, Howdon, Willington Quay, and Holy Cross Wards, and lowest in Buddle and Northumberland Wards.

The births and birth-rates, in the respective Wards for the past three years are appended.

Births and Birth Rates in each Ward.

Ward.	Births and Birth Rates per 1,000 Population.					
	1911.		1912.		1913.	
	Number.	Rate.	Number.	Rate.	Number.	Rate.
Northumberland ...	107	32.0	112	32.6	89	25.7
Wallsend ...	136	33.2	138	32.7	139	32.4
Carville ...	162	28.7	199	33.5	223	36.7
Buddle ...	181	29.3	165	25.8	138	21.2
Holy Cross ...	158	28.6	185	32.2	176	30.2
Hadrian ...	156	32.6	121	24.5	141	28.1
Willington ...	75	30.7	95	36.7	71	27.2
Willington Quay ...	139	33.4	172	39.1	135	30.2
Howdon ...	174	33.6	166	30.8	175	31.9
Borough : (birth-rate calculated upon regist'r'd births)	1,288	31.1	1,353	31.4	1,287	29.5
Borough : (birth-rate calculated upon nett births) ...	1,298	31.3	1,361	31.6	1,297	29.7

Infant Deaths and Infant Mortality Rates in each Ward.

Ward.	1911.			1912.			1913.		
	Births.	Deaths under 1 year.	Death Rate per 1,000 Births.	Births.	Deaths under 1 year.	Death Rate per 1,000 Births.	Births.	Deaths under 1 year.	Death Rate per 1,000 Births.
Northumberland ...	107	13	121.5	112	9	83.5	89	11	123.6
Wallsend ...	136	18	132.3	138	12	86.9	139	17	122.3
Carville ...	162	28	172.8	199	22	110.5	223	28	125.5
Buddle ...	181	22	121.5	165	10	60.6	138	11	79.6
Holy Cross ...	158	23	145.8	185	19	102.7	176	26	147.7
Hadrian ...	156	23	147.4	121	14	115.7	141	15	106.4
Willington ...	75	15	200.0	95	10	105.2	71	7	98.6
Willington Quay ...	139	17	122.3	172	12	69.7	135	14	103.7
Howdon ...	174	21	120.7	166	20	120.5	175	25	142.8
Borough : (death-rate calculated upon regist'r'd births)	1,288	180	139.7	1,353	128	94.6	1,287	154	119.5
Borough : (death-rate calculated upon nett births) ...	1,298	180	138.6	1,361	128	94.0	1,297	154	118.7

INFANTILE MORTALITY.

The rate of infant mortality measured by the proportion of deaths of children under the age of one year to 1,000 nett births, corresponded to 118.7, as compared with 94.0 in the previous year.

The Wards with the highest infant death-rates were Holy Cross, Howdon, Carville, Northumberland and Wallsend Wards.

The lowest infant death-rates being recorded in the Buddle and Willington Wards.

The percentage of infant deaths to deaths at all ages was 23.3, as compared with a percentage of 22.8 last year, and the infant death-rate calculated per 1,000 of the population, was 3.5 against 2.9 in 1912.

No less than 35, or 22.7 per cent. of the total infant deaths, took place during the first week of life; 16, or 10.3 per cent., died at ages between 1 and 4 weeks, together making a total of 51 deaths of infants within the first 4 weeks of life, or 33.1 per cent. of the total infant mortality.

Nearly one half (48.0 per cent.) of the infants deaths, occurred before the children reached the age of 3 months.

Comparison of Table IV with the corresponding Table of 1912, shows that there was a diminution in the number of deaths from developmental and wasting diseases, and an increase in deaths from measles, whooping cough, respiratory and intestinal diseases.

Over one third of the total number of deaths were due to congenital debility, atrophy, premature birth, and congenital malformations, and 55.6 per cent. of these occurred within the first week of life.

The following table gives a summary of the relative circumstances of each Ward, in relation to infant mortality.

WARDS,	Population.	Number of Houses.	Average number of persons per House.	Number of Births.	Birth-rates per 1,000 population.	Number of Infant Deaths.	Infantile mortality per 1,000 Births.
Northumberland	3,465	859	4.0	89	25.7	11	123.6
Wallsend	4,287	855	5.0	139	32.4	17	122.3
Carville	6,065	1,135	5.3	223	36.7	28	125.5
Bnddle	6,506	1,169	5.5	138	21.2	11	79.6
Holy Cross... ..	5,813	1,165	4.9	176	30.2	26	147.7
Hadrian	5,008	959	5.2	141	28.1	15	106.4
Willington	2,610	548	4.7	71	27.2	7	98.6
Willington Quay	4,470	1,075	4.1	135	30.2	14	103.7
Howdon	5,476	1,033	5.3	175	31.9	25	142.8
Borough	43,700	8,798	4.9	1,287	29.5	154	119.5

ZYMOTIC DEATH-RATE.

The so-called zymotic death-rate is calculated upon the deaths per 1,000, of the population which occur from the following seven common epidemic diseases: Small pox, scarlet fever, diphtheria, enteric fever, measles, whooping cough, and epidemic diarrhoea.

The deaths from these diseases, which occurred in the respective Wards, together with the corresponding death-rates are set out in Table .

The total number of deaths from zymotic diseases, exceeds by 27 that recorded in the previous year, the increase being attributable to diarrhoea, measles, whooping cough, and enteric fever, of which there were 27, 25, 17, and 6 deaths respectively. A saving was shown in deaths from scarlet fever and diphtheria, no deaths having occurred from the former and only 4 from the latter disease, or a decrease of 8 deaths.



BOROUGH OF WALLSEND.

ANNUAL REPORT

OF THE

SANITARY INSPECTOR.

FOR THE YEAR

1913.

ANNUAL REPORT OF THE SANITARY INSPECTOR FOR THE YEAR ENDING 31ST DECEMBER, 1913.

TO THE CHAIRMAN AND MEMBERS OF THE
SANITARY COMMITTEE,

I have pleasure in submitting to you my Ninth Annual Report upon the work of the Sanitary Department.

Additional duties caused by the coming into operation of the Tuberculosis Order, 1913 and observations of grit nuisances during several months of the year, have taken up a good deal of my time and that of my assistants (Inspectors McKellar and Davidson), whose useful assistance I take the opportunity of acknowledging.

I am,

Your obedient Servant,

WILLIAM JOHNSON,

Chief Sanitary Inspector.

GENERAL SANITARY WORK.

During the period under review, 1662 Informal Notices for the abatement of nuisances were served.

176 Statutory Notices were served by order of the Town Council for the abatement of nuisances and the conversion of privy-middens and slop-closets into water-closets.

In no case was legal proceedings instituted, although in 5 instances Statutory Notices were not complied with until the Town Council had instructed your Inspector to institute proceedings.

56 Statutory Notices served under Section 39, Public Health Amendment Act, 1907, upon owners of privy-middens in the Howdon and Willington Quay Wards to substitute water-closets were not complied with, and the Town Council will themselves proceed with the execution of this work.

Owing to brisk trade in the district all houses have been occupied, and difficulty was experienced in the abatement of nuisances arising from overcrowded dwelling houses. This matter was reported to the Sanitary Committee and is receiving attention.

During the month of June an exceptionally heavy rainstorm was experienced, causing the flooding of many houses in the district.

GRIT NUISANCES.

During the months of June and July, grit was discharged from chimneys of works in the district to the annoyance of residents.

Daily observations were made and grit deposits collected from 12 special gauges placed in the different quarters of the town.

The deposits were carefully dried, weighed, and analysed, and a report thereon submitted to the Sanitary Committee.

Representations were made to the owners of works responsible for this nuisance with the result that certain alterations were made to the furnace flues at the works, which for a time somewhat obviated the nuisance.

At the end of the year observations were being continued.

PUBLIC BATHS CHIMNEY.

A nuisance caused by the emission of black smoke from the boiler chimney of the Public Baths was reported. A smoke consuming apparatus was installed which has not only completely abated the nuisance but has effected a saving of at least 8 per cent. of fuel.

LEASEHOLD PROPERTY.

In the Willington Quay and Howdon Wards are situated a considerable number of houses the leases of which have only a few years to run.

The owners are not spending a fair proportion of the income from this property upon repairs, with the result that it is fast becoming slum property, and is attracting to the district an undesirable class of people. That Local Authorities should have more power to deal with dirty and destructive tenants, is the opinion of all Inspectors.

The following is a Summary of Nuisances dealt with:—

SUMMARY OF NOTICES SERVED FOR THE ABATEMENT OF NUISANCES.

	Informal Notice.	Statutory Notice.	Complied with.
Privy-ashpits, to substitute water-closets (Section 39, Public Health Amendment Act, 1907). ...		56	
Privy-ashpits, to substitute water-closets (Section 36, Public Health Act, 1875). ...		8	2
Ashpits, to substitute ash receptacles (Section 36, Public Health Act, 1875). ...		54	54
Slop-closets, to substitute water-closets ...		25	25
Privy accommodation, to provide (factories) ...		4	4
Water-closet fittings (basins, etc., defective) ...	19		19
Privy buildings, to repair ...	60	5	60
Privy seats, to repair ...	44		44
Privy cleansing doors, to repair ...	209	6	209
Privy overflowing upon backs streets (cautions) ...	93		93
Privy buildings, to cleanse ...	15		15
Drains defective, to repair or reconstruct ...	45	2	45
Sink-waste pipes, to repair and trap ...	159	7	159
Yard surfaces, to repair or relay ...	97	4	97
Yard surfaces, to cleanse ...	19		19
Houses dirty, to cleanse ...	13		13
Passages, and staircases, to cleanse and lime-wash ...	119		119
Roofs, to repair ...	130	3	130
Spouting, to repair ...	136	5	136
Staircases ...	23		23
Floors to repair and ventilate ...	67	2	67
Ceilings, to repair ...	38		38
Walls, damp, to repair ...	67		67
Water supply, to provide ...	15		15
Overcrowding, to abate ...	15		15
Animals improperly kept ...	55	1	55
Offensive accumulations, to remove ...	4		4
Manure, to remove periodically ...	10		10
Outhouses, to repair ...	63		63
Windows, to repair sash cords, etc. ...	102		102
Yard walls, to repair ...	41		41
Offensive effluvia from factories ...	4		4
Totals—	1662	176	1697

HOUSING AND TOWN PLANNING ACT. ETC., ACT, 1909.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS.

During the year a systematic inspection of houses to which the regulations apply, has been made, and information respecting the sanitary condition of the premises with other information obtained and entered upon special Housing Cards.

Arising from the inspection of 1001 dwelling houses, all situated in the west part of the district, 393 defects were discovered such as defective roofs, dilapidated out-houses, damaged plaster, etc. Wherever possible Section 14 and 15 of the Housing Town Planning Act, 1909.

In each case the person responsible is served with an informal notice, and is given the opportunity of having the work done without the intervention of the Sanitary Committee.

Under Section 15 of the Housing, Town Planning, etc., Act, a condition is implied that at the letting of a house, it must be in all respects reasonably fit for human habitation.

In a recent case it was held that a dwelling house is unfit if swarming with noxious vermin.

A tenant was awarded £5 5s., damages.

STATEMENT OF WORK CARRIED OUT UNDER THE HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

Number of houses inspected under Section 14 and 15 ...	1001
Number of informal notices served to remedy defects under Section 14 and 15	180
Number of informal notices served under Section 91, Public Health Act, 1875	213
Number of house inspected under Section 17	51
Number of houses found unfit for habitation	14
Number of houses voluntarily closed by owners after service of informal notice	10
Number of Closing Orders made by Town Council	6
Number of houses demolished by owners	2

HOUSES CLOSED.

Willington High Row	2 Cottages
Willington Low Row	3 Cottages
Quarry House	1 Cottage
Hardy's Cottages	3 Cottages
Gainers Terrace	5 tenements

HODGSON STREET.

The dilapidated and insanitary condition of 30 dwelling houses (tenements) at Hodgson Street, was reported to the owner, and these houses have been thoroughly repaired and made fit for human habitation.

SALKELD SQUARE.

4 back to back houses converted into 9 through houses. Ashpit removed, wash-up sink and water supply provided and drains reconstructed.

RAVENSWORTH STREET.

Gable end rebuilt.

PRIVY ACCOMMODATION AND CONVERSION OF ASHPITS.

All privy-middens and slop-closets have been removed from the district forming the original Borough of Wallsend, with 5 exceptions, namely:—3 privy-middens at East Terrace and 2 at John Street.

The sewer at East Terrace is not suitable for a water carriage system and until it is relaid, water closets cannot be substituted for ashpits. The 2 ashpits at John Street are included in a list of ashpits, plans for the conversion of which are being prepared by the Town Council.

In the Howdon and Willington Quay Wards, privy-contents have to be conveyed through passages of certain houses into the street. Steps are being taken to provide proper water-closets and dry ash-receptacles.

Number of privy-middens in district	...	...	243
Number of cell privies in district	...	...	6131
Number of slop-closets in district	...	...	0
Number of water-closets in district	...	...	1197
Number of privy-middens removed during the			
year	...	...	34
Number of slop-closets removed	...	...	22
Number of cell privies removed	...	...	7
Number of water-closets substituted	...	...	57
Number of ash-receptacles substituted	...	...	56

All fittings used in the substitution of water-closets in lieu of privy-middens, etc., are specially selected and adapted for outside work. All drains are laid in a bed of concrete and intercepting trap with cleansing arm, and an access chamber provided.

Special care is given to this work so as to ensure the proper working of the water-closets, as certain owners of property who are prejudiced against the water carriage system, seize upon any little fault as a sufficient reason for not having water-closets put in their property.

SITUATION OF PREMISES WHERE PRIVY-ASHPITS AND SLOP-CLOSETS HAVE BEEN DEMOLISHED AND WATER-CLOSETS SUBSTITUTED.

The Avenue and Wilberforce Street.

Slop-closets converted into water-closets	22
Ashpits demolished	7
Ash-receptacles provided	16
Cemetery Lodge, ashpits demolished, water-closets substituted	2

Northumberland Villas, ashpits demolished, ash-receptacles provided	10
35 High Street	1
Swan's Cottages	1
Station Road	1
Neptune Road	2
Carville Gardens	1
George Street	1
Hill Street	2
Palmers Terrace	2
Stephenson Street	1
Rosehill Road	1
Rosehill Terrace	2
Sixth Street, cell privy into water-closet	1

REMOVAL AND DISPOSAL OF REFUSE.

During the year your hopper has barged an average of 290 tons weekly to sea. During the tugboatmen's strike, the hopper was not able to proceed to sea, and I had to deposit 200 tons of refuse upon agricultural land.

A single cart with driver and sweeper is now fully employed on day work clearing dry ash-receptacles. Owing to the removal of privy-ashpits, I have been able to work the carts in pairs and to dispense with a sweeper, who is now employed on day work.

A considerable amount of hired team labour was employed and the work done was not satisfactory. During the year, a single cart was employed on ashpit-work in the Willington Area. As the work was not done to my satisfaction, this work was also re-arranged, and this district is now scavenged together with Willington Quay scavengers.

150 tons of refuse have been deposited in the tip near Howdon Station each week.

15 horses and carts are employed on this work.

House refuse barged to sea	15,105 tons
House refuse deposited on land tips	9,560 tons
	Total—24,665 tons

Cost of house refuse removal	£3,056
Cost of house refuse disposal	768
	Total—£3,824

This includes loan repayments for stable, horses and carts and hopper.

	s.	d.
Yearly cost of removal of house refuse per house	6	11½
Yearly cost of disposal of house refuse per house	1	8½
Total—	8	8

Weekly cost per house	2d.
Cost per ton	3s. 1d.

Box-closets are cleansed weekly, and in some cases twice a week. Ashpits are cleansed once in two weeks. Ashpits in outlying districts, such as Bigges Main, are cleansed during the day once in two weeks.

The scavenging of ashpits, etc., by your own men will I am sure have given you satisfaction, as the very few complaints received have arisen from work done by hired horses and men.

TRADE REFUSE.

Trade refuse is collected twice weekly, at the cost of the shopkeepers, on Tuesdays and Fridays. On Saturday nights, a special collection of butchers' and fishmongers' refuse is made and sent to sea.

Other trade refuse is destroyed at the trade refuse furnace recently erected at Willington Quay.

Old metal is sorted from the refuse and will be sold when a quantity has accumulated.

I might suggest that, in my opinion, when a hopper is provided at Willington Quay, the men in charge will be able to look after the trade refuse furnace.

SLAUGHTER HOUSES AND MEAT INSPECTION.

24 slaughter houses were licensed for a period of 12 months. There are 3 registered slaughter houses in the district. These were systematically visited, and I have to report that animals slaughtered in these premises and meat exposed for sale in the shops was of good quality.

Fat cows are not slaughtered in the Borough.

5 tuberculous beef carcasses were surrendered and destroyed in Langdales Steam Digester. In the judgment of meat affected with tuberculosis, the recommendations of the Royal Commission on Tuberculosis are observed, although occasionally conditions present themselves to the Inspector which do not come under either Part 1 or Part 2 of the Recommendations. It is a pleasure to record the ready assistance given to your Inspector by the butchers in the district when engaged in this work. 188 notices to lime-wash were served.

The following is a list of all food surrendered during the year:

MEAT.

					Tons	Cwts.	Qrs.	lbs.
5 carcasses of beef	...	...	...	...	1	9	1	14
Beef, not in carcasses	...	...	...	...	0	1	1	20 $\frac{1}{2}$
Mutton	...	...	...	...	0	1	0	3
Sausage	...	...	...	...	0	1	3	7
Potted meat	...	...	...	...	0	0	1	3
Rabbits	...	...	...	...	0	0	1	3
Livers, Lungs, etc.	...	...	...	...	0	2	3	14
Total—					1	17	0	8 $\frac{1}{2}$

PROVISIONS.

						Cwts.	Qrs.	lbs.
Cheese	...	...	...	...	...	0	5	20 $\frac{1}{2}$
Eggs	...	...	...	...	...	1	4	7
Milk	...	...	...	...	...	1	2	0
Meats	...	...	...	...	...	0	2	21
Bacon	...	...	...	...	...	0	0	10 $\frac{1}{2}$
Fish	...	...	...	...	...	0	0	21
Jam	...	...	...	...	...	0	0	17 $\frac{1}{2}$
Total—					5	3	0	

FRUIT.

					Tons	Cwts.	Qrs.	Lbs.
Apples	...	...	...	...	0	10	3	4
Oranges	...	...	...	...	0	7	1	0
Grapes	...	...	...	...	0	1	2	5
Bananas	...	...	...	...	0	1	2	0
Pears	...	...	...	...	0	2	2	0
Tomatoes	...	...	...	...	0	8	3	24
Brambles	...	...	...	...	0	0	1	10
Dates	...	...	...	...	0	0	1	3 $\frac{1}{2}$
Gooseberries	...	...	...	...	0	0	0	3 $\frac{1}{2}$
Strawberries	...	...	...	...	0	0	1	17 $\frac{1}{2}$
Blaeberries	...	...	...	...	0	0	2	24 $\frac{1}{2}$
Plums	...	...	...	...	0	0	3	7
Total—					1	15	1	17

VEGETABLES.

					Tons	Cwts.	Qrs.	Lbs.
Onions	...	...	...	...	0	14	3	14
Potatoes	...	...	...	...	0	10	3	14
Turnips	...	...	...	...	0	7	2	14
Carrots	...	...	...	...	0	3	1	21
Parsnips	...	...	...	...	0	0	3	17
Leeks	...	...	...	...	0	2	0	7
Cabbages	...	...	...	...	0	14	0	21
Beet	...	...	...	...	0	1	1	0
Cauliflours	...	...	...	...	0	2	0	21
Sprouts	...	...	...	...	0	1	2	7
Celery	...	...	...	...	0	0	1	21
Raddish	...	...	...	...	0	1	1	0
Melons	...	...	...	...	0	0	1	3 $\frac{1}{2}$
Total—					3	0	3	20 $\frac{1}{2}$

FISH.

							Cwts.	Qrs.	Lbs.
Herring	...	...	...	...	...	...	4	2	4
Mackerel	...	...	...	...	...	...	2	2	17
Sprats	...	...	...	...	...	...	0	2	0
Soles	...	...	...	...	...	...	0	1	0
Gurnets	...	...	...	...	...	...	0	2	0
Plaice	...	...	...	...	...	...	0	1	3
Halibutt	...	...	...	...	...	...	0	0	14
Skate	...	...	...	...	...	...	0	1	14
Cod	...	...	...	...	...	...	0	1	3
Haddock	...	...	...	...	...	...	3	1	24
Whittings	...	...	...	...	...	...	0	1	14
Ling	...	...	...	...	...	...	0	1	3 $\frac{1}{2}$
Crabs	...	...	...	...	...	...	0	1	24 $\frac{1}{2}$
Prawns	...	...	...	...	...	...	1	0	7
Turbots	...	...	...	...	...	...	0	1	14
Lobsters	...	...	...	...	...	...	0	1	17 $\frac{1}{2}$
Mussels	...	...	...	...	...	...	0	3	0
Mullet	...	...	...	...	...	...	0	0	21
Shrimps	...	...	...	...	...	...	0	2	0
Total—							17	1	6 $\frac{1}{2}$

Butchers' refuse 20 tons, 19 cwt, 1 qr.

There are 23 colonial meat shops in the Borough.

There are 19 English meat shops in the Borough.

There are 8 pork shops in the Borough.

DISEASES OF ANIMALS ACT.

The Tuberculosis Order of 1913 came into operation on May 1st 1913. This Order provides for veterinary inspection and examination of bovine animals, and also for the slaughter of bovine animals suffering from tuberculosis of the udder, or giving tuberculous milk or suffering from tuberculosis with emaciation.

Your Inspector was appointed Inspector under this Order, with authority to serve notices on behalf of the Committee in accordance with the suggestions of the Board of Agriculture.

All cows in the Borough have been subjected to Veterinary inspection at least once a quarter, and when necessary, special inspections have been made. Minor ailments have been notified to the owners of cows and received attention.

The owners of two diseased cows to which the provisions of the Order did not apply, were advised to slaughter, and complied with the recommendation.

In 3 cases, notices to prevent the sale of milk from 3 cows were complied with. Quarterly returns have been forwarded to the Board of Agriculture.

SWINE FEVER AND GLANDERS.

A suspected outbreak of swine fever amongst swine, and an outbreak of glanders amongst horses was investigated, but was not confirmed.

DAIRIES AND COWSHEDS.

There are 14 cowsheds in the district, containing 97 cows.

1 cowshed was found overcrowded, there not being 800 cubic feet per cow, in the byre.

28 notices to lime-wash were served.

Structural improvements were made to the cowsheds at the East Farm, Wallsend, and to Clavering's Farm, Howdon.

MILKSHOPS.

There are 80 registered milkshops in the district.

These have been regularly visited, and persons not keeping milk under proper conditions have been warned.

COMMON LODGING HOUSE.

The Common Lodging House has been frequently visited. It is situated at Benton Way, and accommodates 40 lodgers.

During the year it has been conducted in a satisfactory manner.

DRAINS.

The following new drains have been inspected, tested, and approved:—

Central Schools	2,441	feet
Rising Sun Houses	434	„
Mc. Harg's Villas	512	„
Point Pleasant Hall	120	„
Church Lodge	14	„
Simpson's Hotel	400	„
King's Road Villas	460	„
Total Length	4,381	feet

RECONSTRUCTED DRAINS

Defective drains of 39 houses and other premises, have been reconstructed to my satisfaction.

Total Length—1,130 feet.

New drainage work is carefully supervised. The practice of meeting builder and arranging this work, obtains and by this means the necessity of condemning work done, is in most

All drains are laid in concrete and subjected to a hydraulic test on completion. Soil pipes are required to be of heavy cast iron pattern, with lead caulked joints. Outgoes of water-closet basins are connected to lead soil pipes, with approved brass thimbles, etc. Access chambers are rendered water-tight, and self-cleansing, by the insertion of proper $\frac{3}{4}$ channel-bends.

SUMMARY OF PRINCIPAL INSPECTIONS MADE.

	REASON OF INPECTION.	NUMBER OF INSPECTIONS.
Dwelling- houses.	General inspections	5,020
	Housing Town, Planning Act Inspections	1,001
	Overcrowding of dwellings	15
	Dilapidated houses, etc.	20
	Defective paving and cementing	50
	Defective yard surfaces	97
	Lime-washing of passages and stair-cases	119
	Dilapidated out-houses	63
	Keeping of fowls in back-yards	55
	Caravans	6
	Dirty houses	13
Sanitary conveniences.	Conversion of ashpits into water-closets	560
	Conversion of slop-closets into water-closets	225
	Conversion of cell-privies into water-closets	20
	Conversion of dry ashpits into Quine Ash receptacles	54
	Overflowing of cell-privies	93
	Defective cell-privy cleansing doors	308
	Defective cell-privy seats	44
	Insufficient closet accommodation	4
Drainage.	New houses drains tested	142
	Choked drains	45
	Inspecting and testing reconstruction of defective drains	20
	Drains tested on complaint	10
	School drainage	60
	Foul urinals	20
	Defective sink waste pipes, gullies, etc.	158
Offensive deposits.	Smoke nuisances	45
	Grit nuisance and observations	163
	Ponds, and rubbish burning, etc.	130
	Accumulation of manure, etc.	124

Water supply.	Absence of water ...	...	...	...	15
	Defective fittings ...	...	...	...	15
	Diseases of Swine fever, movement of licenses ...	...	...	...	122
	Animals Act. Visits to piggeries ...	...	...	...	115
	Sheep dipping ...	...	...	...	4
	Glanders ...	...	...	...	4
Registered and licensed premises.	Slaughter-houses ...	...	...	...	1,248
	Cow-byres ...	...	...	...	140
	Milk-purveyors ...	...	...	...	240
	Common lodging house ...	...	...	...	130
Infectious diseases.	Cases removed to hospital ...	...	...	...	325
	Visits <i>re</i> disinfection ...	...	...	...	351
	Removing bedding to disinfector ...	...	...	...	325
	Disinfection of rooms ...	...	...	...	24
	Schools specially disinfected ...	...	...	...	24
Factory and Workshops Act.	Inspection of Workshops...	...	...	...	300
	Workplaces ...	...	...	...	208
	Total ...	...	...	...	12,502

2. Defects found in Factories, Workshops, and Workplaces.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts—				
Want of Cleanliness ...	...	..	...	...
Want of Ventilation ...	...	...	...	...
Overcrowding ...	...	...	...	...
Want of Drainage of Floors ...	...	...	...	...
Other Nuisances ...	...	...	...	...
Sanitary Accommodation—				
Insufficient ...	2	2	...	...
Unsuitable or Defective ...	1	1	...	...
Not separate for sexes ...	...	...	...	...
Offences under the Factory and Workshop Act—				
Illegal occupation of underground bake-house (s. 101) ...	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ...	...	...	...	...
Other Offences (excluding offences relating to outwork which are included in Part 3 of this Report) ...	...	...	...	...
Total ...	3	3	...	...

Section 22 of the Public Health Acts Amendment Act, 1890 is in force. The standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops is enforced according to Sanitary Accommodation Order of February 4th, 1903.

1. Inspection of Factories, Workshops and Workplaces.

(Including Inspections made by Sanitary Inspector).

Premises.	Number of—		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries) ...	41	3	...
Workshops (including Workshop Laundries)	112	1	...
Workplaces (other than outworkers' premises included in Part 3 of this Report) ...	25	...	...
Total ...	208	4	...

4. Registered Workshops.

Workshops on the Register (s. 131) at the end of the year.	Number.
Workshop Bakehouses	5
" Laundries	...
Other Workshops	41
Total Number of Workshops on Register	46

5. Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	..
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)—	
Notified by H.M. Inspector	5
Reports (of action taken) sent to H. M. Inspector	5
Other	...
Underground Bakehouses (s. 101)—	
Certificates granted during the year	...
In use at the end of the year	Nil.

TABLES.

TABLE I.

Vital Statistics of Whole District during 1913
and Previous Years.

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District			
		Uncorrected Number.	Nett.		Number.	Rate.	Of Non-Residents registered in the District.	Of Residents not registered in the District.	Under 1 year.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	28,000	993	...	35·4	320	11·4	...	21	113	118·3	341	12·2
1909	29,000	851	...	29·3	346	11·9	2	21	107	125·7	365	12·5
1910	29,500	905	...	31·2	286	9·5	...	26	77	85·0	312	10·7
1911	41,343	1,288	1,298	31·3	502	12·1	6	85	180	138·6	581	14·0
1912	43,000	1,353	1,361	31·6	490	11·4	5	75	128	94·0	560	13·0
1913	43,700	1,287	1,297	29·7	571	13·1	5	93	154	119·5	659	15·1

TABLE II.

Cases of Infectious Diseases notified during the Year 1913.

Notifiable Disease.	Number of Cases Notified.							Total Cases Notified in each Ward.								Total Cases Re- moved to Hospital		
	At all Ages.	At Ages—Years.					Northum- berland.	Wallsend.	Carville.	Buddle.	Holy Cross.	Hadrian.	Willington.	Willington Quay.	Howdon.			
		Under 1	1 to 5.	5 to 15	15 to 25.	25 to 45.											45 to 65.	65 and up- wards
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	85
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	193
Diphtheria, including Membranous Croup)	97	1	27	50	12	6	1	..	8	29	21	14	5	8	3	..	..	47
Erysipelas ..	24	1	..	4	2	8	7	2	4	6	5	3	1	1	4	..	..	..
Scarlet Fever ..	199	..	41	145	10	3	..	..	22	34	29	23	20	17	..	..	..	..
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	49	..	2	9	10	23	5	..	10	2	3	1	..	7	13	..	..	..
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Continued Fever ..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis	119	..	12	43	31	22	11	..	21	17	19	12	8	18	12	..	..	..
Other forms of Tuber- culosis ..	86	7	29	35	9	5	1	..	14	10	13	4	3	16	6	..	..	..
Totals ..	575	9	111	286	74	67	26	2	79	98	90	57	46	67	39	..	..	325

TABLE

Causes of, and Ages at,

Causes of Death.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.									
	All Ages.	Under 1	1 and under 2	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards.	
Enteric Fever	6	..	..	..	..	1	3	2	..	
Measles	25	6	6	11	2	..	..	..	..	
Scarlet Fever	..	..	..	..	..	..	..	..	..	
Whooping-cough.. ..	17	8	5	2	2	..	..	..	..	
Diphtheria and Croup ..	4	1	..	..	3	..	..	..	..	
Influenza	..	..	..	..	..	..	..	..	..	
Erysipelas	1	..	..	..	..	..	..	1	..	
Pulmonary Tuberculosis ..	32	..	..	1	1	8	13	9	..	
Tuberculous Meningitis ..	19	3	3	6	6	..	1	..	..	
Other Tuberculous Diseases	18	7	6	1	1	2	1	..	..	
Cancer	44	..	..	..	..	..	8	24	12	
Rheumatic Fever.. ..	..	..	..	..	..	..	..	..	..	
Meningitis(not Tuberculous)	7	3	1	2	1	..	..	..	..	
Organic Heart Diseases ..	54	..	1	1	3	1	11	19	18	
Bronchitis	55	14	3	2	1	..	2	9	24	
Pneumonia	37	5	6	4	2	4	7	5	4	
Broncho-Pneumonia	36	17	7	3	2	..	1	5	1	
Other Diseases of Respiratory Organs	2	..	..	..	..	..	2	..	..	
Diarrhoea and Enteritis ..	27	20	5	..	1	..	1	..	..	
Appendicitis	1	..	..	..	..	..	1	..	..	
Cirrhosis of Liver	2	..	..	..	..	..	1	1	..	
Alcoholism	1	..	..	..	..	..	..	1	..	
Nephritis & Bright's Disease	16	1	1	1	..	2	6	5	..	
Puerperal Fever	..	..	..	..	..	..	..	..	..	
Accidents and Diseases of Parturition	3	..	..	..	..	1	2	..	..	
Congenital Debility and Malformation (including Premature Birth)	53	52	1	..	..	..	..	..	..	
Syphilis.. ..	1	..	..	..	..	..	..	1	..	
Violent Deaths	29	1	3	..	6	6	10	1	2	
Suicides.. ..	4	..	..	..	..	..	2	2	..	
Senility	42	..	..	..	..	..	..	..	42	
Cerebral Haemorrhage ..	32	1	..	..	..	..	2	14	15	
Other Defined Diseases ..	87	15	3	1	8	3	13	19	25	
Other Ill-Defined Diseases..	4	..	..	..	..	..	..	..	4	
All causes	659	154	51	35	39	28	87	118	147	

III.

Death during the Year 1913.

Deaths at all ages of "Residents" belonging to the Wards, whether occurring in or beyond the District.									Total Deaths in Fever Hospital
Northum- berland.	Walls- end.	Car- ville.	Buddle.	Holy Cross.	Had- rian.	Willing- ton.	Willing- ton Quay.	Howdon.	
..	..	..	..	4	1	..	..	1	4
2	6	4	2	1	2	2	2	4	..
..	..	..	..	..	..	..	..	..	..
2	1	6	1	..	1	1	2	3	..
..	..	..	..	3	..	..	1	..	3
..	..	..	..	..	..	..	..	..	..
..	..	..	..	1	..	..	..	..	..
2	3	3	4	4	3	5	1	7	..
3	3	2	1	2	2	2	..	4	..
..	2	2	..	2	4	1	5	2	..
8	7	7	7	4	2	3	4	2	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	1	2	3	..	1	..
6	3	5	8	7	5	3	9	8	..
8	11	8	5	7	3	2	5	6	..
5	2	9	2	3	4	1	6	5	..
2	6	7	2	3	4	2	5	5	..
..	..	1	..	1	..	..	..	..	..
3	5	7	1	5	2	..	2	2	..
..	..	1	..	..	..	..	..	..	..
1	..	1	..	..	..	..	..	..	..
..	..	..	..	..	..	..	1	..	..
4	..	1	2	2	4	2	1	..	..
..	..	..	..	..	..	..	..	..	..
..	1	2	..	..	..	..	..	..	..
3	3	10	4	12	5	2	6	8	..
..	1	..	..	..	..	..	..	..	..
2	2	5	3	4	6	1	2	4	..
..	2	..	1	..	..	..	1	..	..
3	5	7	4	7	2	..	9	5	..
1	1	4	4	7	4	3	4	4	..
7	8	13	17	8	4	9	7	14	..
..	..	..	1	..	1	..	1	1	..
62	72	105	69	88	61	42	74	86	7

TABLE IV.

Infantile Mortality during the Year 1913.

CAUSES OF DEATH.	Under 1 week.	1 to 2 weeks.	2 to 3 weeks	3 to 4 weeks.	Total under 1 month.	1 to 3 months	3 to 6 months.	6 to 9 months.	9 to 12 months.	Total Deaths under 1 year.	Northumberland.	Wallsend.	Garville.	Buddle.	Holy Cross	Hadrian.	Willing-ton.	Willing-ton Quay.	Howdon.
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	1	...	...	5	6	1	...	2	...	1	...	1	...	1
Scarlet Fever...	...	...	...	...	...	2	1	2	3	8	1	...	3	1	...	1	...	1	1
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	1	...	...	3	3	...	...	...	1	1	...	1	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	2	1	1	5	...	...	1	...	...	2	1	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	1	1	1	3	...	...	...	...	...	1	1	...	1
Convulsions ...	1	1	...	1	3	...	3	1	1	9	...	...	1	...	1	...	1	...	5
Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	1	...	...	2	3	...	3	2	...	14	...	4	2	1	...	2	1	...	1
Pneumonia (all forms)	...	...	...	2	2	...	6	3	8	22	2	5	2	2	3	3	...	...	5
Diarrhoea ...	...	...	...	...	...	1	2	3	...	6	...	2	2	2	...	...	...	...	1
Enteritis ...	...	...	...	...	...	3	3	4	4	14	2	3	3	1	3	1	1	...	...
Gastritis ...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	1
Syphilis ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Suffocation, overlying...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	1	...	...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...
Atelectasis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	3	1	2	...	6	...	...	1	...	7	...	1	...	1	2	1	...	1	1
Premature Birth	23	1	2	...	26	...	...	...	...	26	2	...	4	2	6	2	3	3	6
Atrophy, Debility, & Marasmus	3	...	2	1	6	5	7	1	...	19	1	1	6	1	4	2	1	2	1
Other Causes...	3	...	...	1	4	...	...	1	1	6	...	...	1	1	4	...	...	...	...
TOTALS	35	3	6	7	51	23	29	21	30	154	11	17	28	11	26	15	7	14	25

TABLE V.

Causes of, and Ages at, Deaths of Residents Registered Beyond the District.

CAUSES OF DEATH.	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	North- berland.	Wallsend.	Carville.	Buddle.	Holy Cross.	Hadrian.	Willington	Willington Quay.	Howdon.
Whooping Cough ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Pulmonary Tuberculosis ...	3	...	...	1	...	...	...	...	...	1	1	...	...	...	...	1	...	...
Other Tuberculous Diseases ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cancer ...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Meningitis (not Tuberculous) ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease ...	9	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	7	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Broncho-Pneumonia ...	7	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs ..	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Appendicitis...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Nephritis ...	7	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver ...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Congenital Debility ...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Violent Deaths ...	18	1	...	...	4	...	8	...	1	...	2	...	2	...	3	1	...	2
Accidents and Diseases of Parturition ...	2	...	...	...	...	1	1	...	...	...	...	2	...	...	...	...	...	...
Cerebral Haemorrhage ...	4	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Senility ...	4	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
Other Defined Diseases ...	16	...	...	1	3	1	5	...	1	2	1	5	5	...	2	...	...	1
Totals ...	93	7	1	3	12	9	24	21	16	13	9	25	10	12	9	4	8	3

TABLE VI.

Particulars of Work carried out under the Notification of Births Act, 1907.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Number of Births Notified ...	98	97	95	128	115	95	139	91	104	91	93	109	1,255
Notified by Doctors ...	29	34	30	44	43	27	51	30	36	26	41	34	425
" Midwives ...	58	53	46	68	64	50	70	52	50	49	39	60	659
" Other Persons ...	11	10	19	16	8	18	18	9	18	16	13	15	171
Number of Births not Notified	3	3	1	3	2	3	2	2	3	3	4	3	32
" Illegitimate Births	1	2	1	2	1	1	6	3	2	1	2	3	25
" Still Births ...	1	2	5	10	4	4	8	...	1	4	2	...	41
" Wholly Breast Fed ...	73	75	69	91	92	40	79	38	28	78	41	58	762
" Hand Fed ...	6	5	2	2	2	..	4	2	3	2	1	2	31
" Partly Hand Fed ...	1	2	1	2	1	1	2	2	...	2	4	2	20
Number of Deaths amongst Supervised Children ...	8	8	3	6	8	5	3	8	5	3	1	4	62
Number of First Visits	80	82	72	95	95	41	85	42	31	82	46	62	813
" Re-Visits ...	5	11	10	14	16	2	7	2	4	1	1	2	75

TABLE IX.

Deaths and Death-Rates from each of the Seven Principal Zymotic Diseases.

	Northum-berland.		Wallsend.		Carville.		Buddle.		Holy Cross.		Hadrian.		Willington.		Willington Quay.		Howdon.		Borough of Wallsend.	
	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.
ZYMOTIC DISEASES.																				
Small Pox ...	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00
Scarlet Fever ...	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00	0	·00
Diphtheria ...	0	·00	0	·00	0	·00	0	·00	3	·51	0	·00	0	·00	1	·22	0	·00	4	·08
Enteric Fever...	0	·00	0	·00	0	·00	0	·00	4	·68	1	·19	0	·00	0	·00	1	·18	6	·14
Measles ...	2	·57	6	1·39	4	·65	2	·31	1	·17	2	·39	2	·76	2	·45	4	·73	25	·57
Whooping Cough ...	2	·57	1	·23	6	·98	1	·15	0	·00	1	·19	1	·38	2	·45	3	·55	17	·39
Zymotic Enteritis ...	3	·85	5	1·16	7	1·15	1	·15	5	·86	2	·39	0	·00	2	·45	2	·36	27	·61
Totals ...	7	2·02	12	2·79	17	2·8	4	·61	13	2·23	6	1·19	3	1·14	7	1·56	10	1·82	79	1·81

TABLE X.

Cases of Infectious Disease notified during each week in 1913.

Week Ending.	DISEASE.							Total.
	Scarlet Fever.	Diph- theria.	Enteric Fever.	Contin'd Fever.	Erysi- pelas.	Tuberculosis.		
						Pulmonary	Other.	
Jan. 4th	2	1	1	...	...	...	...	4
„ 11th	2	3	...	...	1	3	...	9
„ 18th	1	1	...	...	1	4	...	7
„ 25th	2	2	...	...	...	3	...	7
Feb. 1st	1	1	...	...	...	5	...	7
„ 8th	2	5	...	...	...	8	5	20
„ 15th	...	3	...	...	...	4	3	10
„ 22nd	...	4	...	...	...	11	10	25
Mar. 1st	3	2	...	...	1	3	1	10
„ 8th	7	3	...	...	...	2	6	18
„ 15th	2	...	...	...	1	4	3	10
„ 22nd	3	7	...	...	...	1	2	13
„ 29th	...	1	...	...	1	1	2	5
April 5th	1	..	...	...	...	2	...	3
„ 12th	1	1	...	...	1	1	2	6
„ 19th	1	1	1	...	...	3	1	7
„ 26th	1	2	...	...	1	1	3	8
May 3rd	1	1	1	...	...	7	2	12
„ 10th	1	1	...	...	1	3	1	7
„ 17th	2	1	...	...	...	...	1	4
„ 24th	...	5	...	...	1	1	...	7
„ 31st	2	1	1	...	...	3	...	7
June 7th	...	2	...	...	...	1	...	3
„ 14th	2	...	4	...	1	...	1	8
„ 21st	2	...	...	...	1	2	...	5
„ 28th	1	1	1	...	1	1	...	5
July 5th	1	1	2	...	...	...	1	5
„ 12th	2	3	3	...	...	...	...	8
„ 19th	2	1	1	...	...	1	...	5
„ 26th	2	...	...	...	...	1	2	5
Aug. 2nd	5	2	1	...	...	2	...	10
„ 9th	4	3	...	...	1	2	1	11
„ 16th	5	2	1	...	...	1	...	9
„ 23rd	5	1	1	...	...	1	1	9
„ 30th	10	2	...	...	...	1	...	13
Sept. 6th	3	2	1	...	...	...	1	7
„ 13th	7	...	...	...	...	2	2	11
„ 20th	7	1	1	...	...	...	1	10
„ 27th	8	4	...	...	1	1	...	14
Oct. 4th	4	1	...	...	3	5	6	19
„ 11th	4	2	...	...	1	...	1	8
„ 18th	7	1	..	...	...	1	3	12
„ 25th	4	2	3	...	...	...	...	9
Nov. 1st	4	2	5	...	1	...	2	14
„ 8th	12	1	5	...	...	1	1	20
„ 15th	7	5	2	1	...	2	2	19
„ 22nd	4	3	2	...	1	...	1	11
„ 29th	3	...	4	...	1	5	2	15
Dec. 6th	10	4	6	...	3	1	...	24
„ 13th	11	1	1	...	...	...	2	15
„ 20th	8	1	1	...	...	9	6	25
„ 27th	14	1	...	...	..	9	8	32
Remaining 4 days	6	2	...	...	...	...	...	8
Total	199	97	49	1	24	119	86	575